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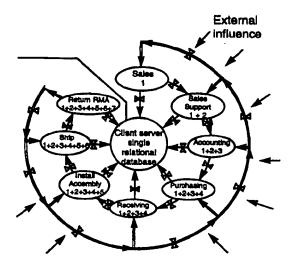
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(54) Title: INTEGRATED BUSINESS-TO-BUSINESS WEB COMMERCE AND BUSINESS AUTOMATION SYSTEM



### (57) Abstract

The present invention, generally speaking, provides software that enables end-to-end, business-to-business Web commerce (Web business, or e-business) and that automates to the greatest degree possible, in a unified and synergistic fashion and using best proven business practices, the various aspects of running a successful and profitable business. Web business and business automation are both greatly facilitated using a computing model based on a single integrated database management system (DBMS) with intrinsic data synchronization that is either Web-enabled or provided with a Web front-end. The Web provides a window into a "seamless" end-to-end internal business process. The effect of such integration on the business cycle is profound, allowing the sale of virtually anything in a transactional context (goods, services, insurance, subscriptions, etc.) to be drastically streamlined.

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# INTEGRATED BUSINESS-TO-BUSINESS WEB COMMERCE AND BUSINESS AUTOMATION SYSTEM

# BACKGROUND OF THE INVENTION

### 1. Field of the Invention

The present invention relates to business-to-business Web commerce and to business automation systems.

# 2. State of the Art

Web commerce may be defined as the use of a computer network, such as the Internet, to do business, such as buy and sell products or services. Although Web commerce is still in its infancy, relatively speaking, Web commerce is predicted by some to soon become the dominant mode of business practice. Web commerce allows business to move much more quickly, without the burden and cost of paperwork.

Despite the promise of Web commerce, current Web commerce software is typically of very limited capability. Most Web commerce is consumer-oriented rather than business-oriented. The tacit assumption is that the purpose of the Internet should be to enrich people's personal lives more than to enable business to move at light speed. Furthermore, typically each transaction is treated in isolation. No on-going course of business is assumed or facilitated.

Material management functions such as procurement represent a substantial expense and burden for medium and large businesses. Purchases are typically subject to approval at multiple levels. In the case of the purchase of a computer, for example, an employee might submit a purchase request to the employee's supervisor, who might approve the request and forward it to the MIS (Management Information Systems) department, which might approve the request and forward it to accounting for budgetary approval. The real cost of such a process is estimated to be as much as \$100 per purchase request. Furthermore, the time required for such a process to be completed may be weeks or months. In the meantime, productivity may suffer.

Purchasing, moreover, is only part of the larger problem of material management. Once materials have been procured, typically they must be tagged, tracked and accounted for, both physically and in accounting terms such as depreciation, etc. The latter activities may either be conducted in an organized fashion, often at considerable expense, or haphazardly, with marginal effectiveness.

Existing Web commerce software is likewise fraught with problems for the selling company. When an order is placed through the Web, it typically results in a fax or email, information from which must be manually entered into an internal sales system that may or may not be linked to other closed systems such as accounting, human resources, purchasing, assembly, etc. Even if these various systems are linked in some fashion, such linking is fixed, not responsive to change. Hence, once an entry is made, depending on the degree of automation, additional manual intervention may be required to achieve the desired final result, e.g., ship a product to a customer. The purchaser is typically unable to determine the status of an order without placing a call or sending an email. Moreover, order fulfillment is again only a part of the larger problem of total customer satisfaction (which is in turn only a part of the larger problem of running a successful, profitable business). Returns are bound to occur and must typically be handled manually, typically by a Return Merchandise Authorization (RMA) or traffic department. Also, some fraction of shipments are bound to be lost, damaged or mis-shipped. Related insurance claims typically must also be handled manually both by the traffic and accounting departments. Even though the foregoing activities are closely related functionally, the mechanisms for handling these activities, whether manual or automated, are often ad hoc, because of the unanticipated, non-routine, but inevitable nature of such events.

On a business-wide scale, the same is largely true: the various activities of the business, while they may be separately automated, are not automated in a unified, synergistic fashion. Automation is typically performed by automating, testing

and implementing fixed, linear work flows for a fixed environment, resulting in systems that are not adaptable to the real, changing business environment. Most often, different departments each have separate database systems with the departments being linked by a local- or wide-area network. A person in one department obtains information from a different department by sending an email and requesting a report. Referring more particularly to Figure 1, in accordance with a typical model of business automation, various departments (e.g., sales, sales support, customer service, accounting, purchasing, receiving, engineering, assembly, shipping) are separately automated but linked together by a computer network (e.g, LAN, WAN). Each department interfaces to multiple different departments in an essentially manual fashion but using modern electronic communications tools—phone. fax, email, computer hardcopy, etc. Comparison of the resulting overall business process to a Rube Goldberg invention is apt, if mildly exaggerated. The process entails repeated transmission of duplicate information to different departments and repeated transmission of additional information and instructions to different departments on an as-needed basis. The party transmitting the information controls the amount and quality of information conveyed. The party receiving the information has no control over the information or the quality of the instructions received but rather is entirely dependent on the party transmitting the information. Duplication occurs both within departments and between departments. An external influence to the system (a call from a customer or vendor, a new customer account, a ruffled employee) can and often does cause a flurry of activities, but often produces less-than-commensurate positive results because of the inherent inefficiency of the system. The process, because it is ill-defined, is not easily reversible when an error has been made. In most systems, mistakes must be propagated to the end of a work flow before reversal can occur.

The foregoing model results in the fragmentation of information— "the right hand does not know what the left hand is doing." Information is transported

from one place to another, either in hardcopy form, necessitating re-entry, or in such electronic form as to require substantial massaging, and with substantial latency such that by the time the information is to be used it is already outdated. A business executive, for lack of readily-available, accurate, verifiable information in usable form, must then rely heavily on subordinates to obtain a picture (hopefully accurate) of what is happening inside the company. Considerably employee time may be spent gathering historical data to satisfy the need for management information. The same factors that hamper management performance may also cause performance at lower levels within the company to suffer. Employees may lack timely information regarding critical tasks that need to be performed. For lack of timely information regarding returns, for example, or some other aspects of operations, accounting personnel may pay invoices that should in fact not be paid.

The lack of readily-available, verifiable information in usable form is most pronounced in relation to financial information. In the case of a sales company doing a substantial volume of business, for example, preparation of a state sales tax return may take ten man-days or more. An audit may take a similar amount of preparation. Closing the books on an accounting period is itself an arduous task. The time requirements and challenges posed by month-end and year-end closings are all-too-familiar to virtually all in-house accountants. Despite these heroics, the inherent latency of the process diminishes the value of the results. A finalized June statement, for example, might be received at the end of July or the beginning of August, hampering the ability to react quickly to changing business conditions. A real-time financial statement is non-existent.

For lack of readily-available, verifiable information in usable form, employee evaluation is often performed more on the basis of perception than objective reality. The appearance of performance then becomes at least as important as real performance. Employee performance and employee morale may suffer as a result.

Numerous "high-power" database application software packages exist in the marketplace, from such industry leaders as SAP, Peoplesoft, BAAN, and Oracle. The solutions of each of these vendors have strengths and weaknesses. SAP, for example, although strong in the area of fixed asset management and financials, does not provide flexible shipping and receiving functions. To automate these functions requires the use of separate software. Furthermore, Web integration is problematic. BAAN is strong in the areas of shipping/receiving, manufacture and assembly, but is limited in the areas of fixed asset management and material handling. In particular, BAAN, SAP, etc. are bound by conventional notions of real inventory—an item must physically be in stock before it can be ordered (as contrasted with the concept of virtual inventory, explained more fully hereinafter). Peoplesoft offers strong human relations functions but is not strong in "back-end" functions. Software packages from Peoplesoft and BAAN are therefore often linked together to provided a more complete solution. Similarly, software from SAP may be linked to software from BAAN. Oracle offers discrete modules for almost all of the functions offered by the other software packages. The modules must be linked together in a laborious process, however, with substantial duplication of data in all modules. None of these software packages have a Web-centric design, nor has any been used to successfully implement an automatic ene-to-end business process, even in large corporations having no lack of resources.

Web-centric "e-business solutions" are offered by Pandesic (Intel and SAP), Actra (Netscape) and other (typically early-stage) companies. In the case of Pandesic, early promotional materials indicate a distinct consumer orientation as opposed to business-to-business. A conventional real inventory model is followed in which product must be warehoused and on-hand in order to allow the product to be ordered. Furthermore, Web operations are segregated from non-Web operations, necessitating duplication. In the case of Actra, a portfolio of commerce software, including legacy application integration modules, are designed to "bridge

gaps between enterprises and applications," enabling business-to-business transactions, buyer-side and seller-side procurement, consumer on-line Internet storefronts, and commercial Internet publishing. This "gap-bridging" approach likewise entails substantial duplication.

Dell and Cisco each sells computer and networking equipment directly to consumers over the Web using configuration and order software developed by outside third parties. Business-to-business features, such as invoices, RMAs (particularly automatic "instant" RMAs) are lacking. The software does not provide an end-to-end Web-business solution.

The need for more powerful business solutions is especially apparent in the area of supply-chain management. Currently, demand information is forecast-based and propagates slowly through a supply chain through manual processes. The result is frequent oversupply and undersupply. The power of the Web has not yet been brought to bear on the supply-chain management problem.

A need therefore exists for software that enables end-to-end, business-tobusiness Web commerce and that automates to the greatest degree possible, in a unified and synergistic fashion, the various aspects of running a successful and profitable business. The present invention addresses this need.

# SUMMARY OF THE INVENTION

The present invention, generally speaking, provides software that enables end-to-end, business-to-business Web commerce (Web business, or e-business) and that automates to the greatest degree possible, in a unified and synergistic fashion and using best proven business practices, the various aspects of running a successful and profitable business. Web business and business automation are both greatly facilitated using a computing model based on a single integrated database management system (DBMS) with intrinsic data synchronization that is either Web-enabled or provided with a Web front-end. The Web provides a window into a "seamless" end-to-end internal business process. The effect of such integration

on the business cycle is profound, allowing the sale of virtually anything in a transactional context (goods, services, insurance, subscriptions, etc.) to be drastically streamlined. In accordance with one aspect of the invention, business-to-business transaction processing using a database and a database management system is performed by receiving user demand information (or a user "wish list" or expression of interest interest in selected products) electronically; at least partially in response to receiving the user demand information electronically, automatically storing an order record in the database and maintaining the order record in the database throughout a life cycle of the order; and during the life cycle of the order, multiple users each accessing the order record and processing the order to accomplish a respective one of multiple business functions, and creating records related to the order. The life cycle of the order includes an expected period for at least one of reversal, service, and parts order, where reversal includes customer returns, canncellation and correction of improperly fulfilled or mistaken orders, including employee mistakes. The business software provides a Web-based, business-tobusiness electronic commerce framework that uses the Web as a medium for all parties involved in a transaction (customer, supplier, manufacturer, etc.) within multiple supply-chain tiers to receive up-to-the minute synchronized transaction information relating to any and all facets of the transaction. Information may be disseminated by push (Web broadcast) or pull methods, with a business user exercising information access control.

In the case of a just-in-time product reseller, for example, the business soft-ware operates as follows. A comprehensive product list is updated electronically in real time or at regular intervals from various sources (e.g., by file download, over the Web, or from CD or floppy distributions or other media or even manual input). A graphical Web interface allows a user to obtain a quote based on the product list. The quote is assigned a quote number and saved in the DBMS and may be retrieved and viewed at a later date. Based on the quote, a user with appropriate

Web-verifiable authority may place an order on behalf of a company in accordance with a pre-existing Web-enforceable agreement with the company. An employee of the seller, using the same DBMS, purchases product to fill the order. When the product is received, information regarding receipt of the product is entered into the DBMS. Orders are assembled, shipped and billed, all using the same DBMS. Customers can retrieve previous quote records and view order and shipment status via the Web. Customer invoices are automatically generated upon shipment but may be modified if necessary by a supervisory user having the requisite authority. When a customer payment is received, details concerning the payment are entered into the DBMS. Vendor invoices and payments are also handled using the DBMS, and both customers and vendors can view payment status—invoice, credit (from returns), etc.—via the Web, allowing paper invoice copies to be dispensed with if desired. Returns are provided for and may be return of an entire piece of equipment or replacement of a warranted component part, and replacements may be electronically tracked. Parts tracking saves employee time that would otherwise be spent responding to customer inquiries, and also contributes to customer satisfaction through the convenient availability of timely information.

Throughout the foregoing process, a period (e.g., off-peak or nightly) update process is performed in which consistency checks are performed and in which accounting information (including sales tax information) is collected, journal entries made, and general-ledger entries posted. When records are edited, they are flagged to be checked during the period update so that adjusting entries may be made if necessary. At any time, the update process may be run and an accounting period closed. Real-time, audit-ready financial information accurate up to the day or up to the hour is available within minutes at the touch of a button without the need for a highly-trained accountant. A novice can facilitate the systematic performance of many functions typically performed by accountants, with periodic review and supervision by an accountant.

Because the DBMS is Web-enabled, given the appropriate privileges, a complete up-to-the-minute view of every aspect of a business is available from anywhere in the world. Telecommuting is greatly facilitated, with its attendant cost savings. Furthermore, factual evaluation of employee performance, whether of a telecommuting employee or an office-based employee, is greatly facilitated by statistical analysis of accumulated historical performance data (tasks, projects, assignments, reports).

Driven by the goals of enabling widespread telecommuting and global cyberspace trading, the single database business process software provides parallel synchronized data access to all users. Users have access to all information given the proper access authority. The system provides built-in assurance of prioritized dynamic workflow and best business practice (the optimum known way that a business process should flow) based on self-correcting business knowledge algorithms. The system draws upon a knowledge base to prevent mistakes anticipated by the software designer as well as mistakes that have occurred in the past and have been corrected for by adding to the knowledge base, which is continually accumulating. The dynamic workflow assures that whatever mistakes may occur are discovered at various stages. The system lists and prioritizes uncompleted work that needs to be followed up. All user activities are tracked, and users are held accountable. Every activity performed by users are tracked statistically. Problem sources may therefore be identified. Precision training and factual performance review are made possible, significantly empowering users in their assignments.

The software provides for business scalability (as opposed to mere data processing scalability), minimizing the growing pains experienced by rapidly growing companies. In growing companies, as the responsibility for a process becomes divided among more and more people, becoming more and more diffuse, communication between group members becomes more and more difficult and the

process becomes increasing difficult to manage. The present invention, with dynamic workflow, makes workflow and work quality substantially immune to changes in the number of employees and the experience level of employees. Work discipline and organization is enforced by, and teamwork and communication between users facilitated by, the database. The ease of use of the database system arising from dynamic workflow and the knowledge base incorporated within the system minimizes the need for extensive employee training and allows for flexible employee roles. Business scalability also entails dramatically increased productivity through automated computer assistance, allowing business growth to greatly outstrip personnel growth. One example of business scalability is in the area of purchasing. Orders are grouped for purposes of purchasing such that the number of purchase orders to vendors does not increase as the number of orders received.

Conceptually, the invention allows for the integration and time-scale compression of what have heretofore been largely independent, human-dependent business processes. Business processes have typically been organized into separate business domains, chiefly including a products domain (e.g., engineering, manufacturing, purchasing, shipping, receiving, returns), a payments domain (e.g., accounts receivable, accounts payable), a financial performance domain (e.g., general ledger, financial statements, tax returns) and a personnel domain (e.g., employee evaluation). In accordance with one aspect of the invention, files for the automation of these various business domains are integrated as part of a single database schema within a single database management system run on one or multiple servers. There results a very tight integration of the foregoing activities and other derivatives of those activities such as product forecasting and cash-flow analysis. In particular, a universal financial report and trend report generator provides for general single or multiple General Ledger (GL) account code analysis including sales, cash flow and material.

Time-scale compression of the resulting integrated business automation

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process is achieved in two ways. First, the single database management system is Web-enabled, providing access anytime, anywhere. Second, triggers within the single database management system propagate activity from one business domain to a succeeding business domain (e.g., from shipping in the products domain to accounts payable in the payments domain) without duplication of human efforts. Data can only be entered once and is not ordinarily allowed to be changed or reentered. Data entry is guided by a built-in best-practice knowledge base.

The integrated business automation process may be easily modularized if desired by restricting access to only files belonging to selected business domains. Hence, unlike conventional business automation suites that provide separate software modules that may be acquired separately and linked together (with sustantial data duplication), in the case of the present integrated business automation process, a customer receives everything but may only pay for be given access to a subset of files—e.g. AP/AR files. Later the customer may decide to pay for added capabilities. Such a change in capabilities may be readily administered remotely through the Web. In this manner, the customer is able to "pick and choose" the capabilities that the customer wants to use.

An outside Web user may also pick and choose the capabilities that the user wants to use. For example, orders may be placed by phone or fax but tracked via the Web. Or a user may use the Web only to check the amount owed on open invoices. Others user may use the Web from start to finish, to order products, track orders, track payments, etc.

Extensive measures are taken to ensure that the integrated business process is, to the greatest extent possible, error-free. Only a limited number of controlled entry points to the system are provided. At each entry point, entry validation is performed at the time of entry. Because the business process is integrated, validation may be more extensive and hence more effective than in typical systems. A periodic update process is also performed is which checks are made, including cross-

checks between records of files belonging to different business domains. The system is in effect a closed system where all entries must balance appropriately. The nightly update is able to catch and flag errors (or possible errors) that may have occurred despite entry validation, including hardware or system errors, software bugs, and human errors. As errors become apparent that have escaped detection by the system, the foregoing mechanisms may be readily revised to prevent future such occurrences. Programmed process intelligence therefore continually increases as errors are detected, flagged, and trouble-shooted so as to add to the wealth of the knowledge base and improve the process methodology. At the same time, dynamic workflow makes possible the re-navigation of existing workflow components.

The integrated processes also automates returns and credits both on the customer side and the vendor side. Returns and credits may be necessitated by user errors that go undetected by the system, by overcharges for freight, or numerous other circumstances. Returns are only one important example of what is more generally a reversal process, or catch-all, for mistakes during work-in-progress and for post-sale activity. Return requests, Return Merchandise Authorizations, credit memos and accounting adjustments may all be handled electronically.

# BRIEF DESCRIPTION OF THE DRAWING

The present invention may be further understood from the following description in conjunction with the appended drawing. In the drawing:

Figure 1 is a block diagram illustrating conceptually a conventional business process;

Figure 2 is a block diagram illustrating conceptually an automated business process in accordance with the present invention;

Figure 3 is a generalized block diagram of a system for business-to-business Web commerce in accordance with an exemplary embodiment of the invention:

Figure 4 is an illustration of a starting Web screen display:

Figure 5 is an illustration of a first product categories screen display;

Figure 6 is an illustration of a further product categories screen display;

Figure 7 is an illustration of still a further product categories screen display;

Figure 8 is an illustration of a screen display displaying printer cables;

Figure 9 is an illustration of a shopping basket screen display;

Figure 10 is an illustration of a screen display allowing the user to search for products by manufacturer;

Figure 11 is an illustration of a multi-search screen display:

Figure 12 is an illustration of a core products search screen display;

Figure 13 is an illustration of a core products search results screen display;

Figure 14 is an illustration of a Products Search /PID screen display;

Figure 15 is an illustration of a PID search results screen display;

Figure 16 is an illustration of a PID screen display;

Figure 17 is an illustration of a Products Search/APL screen display;

Figure 18 is an illustration of a Products Search/Previous Quotes screen display;

Figure 19 is an illustration of a quotes search results screen display;

Figure 20 is an illustration of a quote screen display;

Figure 21 is an illustration of a PID maintenance screen display;

Figure 22 is an illustration of an active PIDs screen display;

Figure 23 is an illustration of an APL maintenance screen display;

Figure 24 is a company APL maintenance screen display;

Figure 25 is an illustration of a return request screen display;

Figure 26 is an illustration of an RMA multi-search screen display;

Figure 27 is an illustration of an RMA search results screen display;

Figure 28 is an illustration of an RMA record screen display;

Figure 29 is an illustration of a tracking screen display;

Figure 30 is an illustration of a sales order status screen display;

Figure 31 is an illustration of a sales order search results screen display;;

Figure 32 is an illustration of a Tracking—Return Product and Service Part Status screen display;

Figure 33 is an RMA status search results screen display;

Figure 34 is an illustration of a more detailed RMA status screen display;

Figure 35 is an illustration of a Tracking—Product Purchase History screen display;

Figure 36 is an illustration of a Tracking—Product Return History screen display;

Figure 37 is an illustration of a return history search results screen display displaying search results;

Figure 38 is an illustration of a Reports screen display;

Figure 39 is an illustration of a Back Order Reports screen display;

Figure 40 is an illustration of a Monthly Sales Reports screen display;

Figure 41 is an illustration of a resulting search results screen display;

Figure 42 is an illustration of a Packing Slips screen display;

Figure 43 is an illustration of a resulting search results screen display;

Figure 44 is an illustration of a packing slip screen display displaying a selected packing slip;

Figure 45 is an illustration detailing the authority of various internal users with respect to security parameters in accordance with an exemplary embodiment;

Figure 46 is a diagram of a typical lineage (authority) tree;

Figure 47 is an illustration of a database customer screen display;

Figure 48 is an illustration of a company price list screen display;

Figure 49 is an illustration of one of a series of dialogs used to set Web authority for an employee of a customer;

Figure 50 is an illustration of another of a series of dialogs used to set Web

authority for an employee of a customer;

Figure 51 is an illustration of another of a series of dialogs used to set Web authority for an employee of a customer;

Figure 52 is an illustration of another of a series of dialogs used to set Web authority for an employee of a customer;

Figure 53 is an illustration of another of a series of dialogs used to set Web authority for an employee of a customer;

Figure 54 is an illustration of a dialog used to confirm employee information at the conclusion of Web authorization;

Figure 55 is an illustration of the corresponding screen display as shown in Figure 48, following Web authorization;

Figure 56 is a block diagram of a conventional Web commerce computer architecture in which different functions are automated on different computing platforms, necessitating multiple interfaces;

Figure 57 is a block diagram of the present Web commerce computer architecture in which all functions are automated on a single Web-enabled database, necessitating only a single interface;

Figure 58 is an illustration of a partial database schema of one implementation of the system of Figure 3, showing primary files and relationships;

Figure 59 is a block diagram illustrating an automated business process in accordance with an exemplary embodiment of the invention;

Figure 60 is an illustration of a Sales-MWS screen display;

Figure 61 is an illustration of a Quote screen display;

Figure 62 is an illustration of a Products screen display,

Figure 63 is an illustration of a MWS screen display;

Figure 64 is an illustration of a Purchasing view of a PRIS (Purchasing/Shipping/Receiving/Installation) screen display;

Figure 65 is an illustration of a Receiving view of the PRIS screen display;

Figure 66 is an illustration of an Installation view of the PRIS screen display;

Figure 67 is an illustration of a Shipping view of the PRIS screen display:

Figure 68 is an illustration of a PRIS Item Detail screen display;

Figure 69 is an illustration of an Expedite view of the PRIS screen display;

Figure 70 is an illustration of an Ordered Not Received screen display;

Figure 71 is an illustration of a Received Not Shipped screen display;

Figure 72 is an illustration of an Expedite pop-up, allowing expedite status to be set from a MWS screen display;

Figure 73 is an illustration of an RMA screen display;

Figure 74 is an illustration of an Add RMA screen display used to initially create an RMA;

Figure 75 is an illustration of an RMA add records screen display used to add information to an RMA;

Figure 76 is an illustration of an RMA Automatic Request Completion file;

Figure 77 is an illustration of an RMA Automatic Approval Limit file;

Figure 78 is an illustration of a Customer RMA Automatic Approval file,

Figure 79 is an illustration of a Vendor RMA Automatic Approval file;

Figure 80 is an illustration of a Manufacturer RMA Automatic Approval file;

Figure 81 is an illustration of a Web page used to automatically provide a customer with an RMA number in accordance with the foregoing automatic approval process;

Figure 82 is an illustration of a Sales Tax Register screen display, including formulas used to calculate figures to be entered within each line of a sales tax return;

Figure 83 is an illustration of a Customer Invoices screen display;

Figure 84 is an illustration of the Customer Invoices screen display showing collections information within a pop-up window;

Figure 85 is an illustration of the Customer Invoices screen display showing collections information by customer within a pop-up window;

Figure 86 is an illustration of a Customer Payments screen display;

Figure 87 is an illustration of an OverUnderPay screen display;

Figure 88 is an illustration of an OverUnderPay details screen display;

Figure 89 is an illustration of a Vendor Invoices screen display;

Figure 90 is an illustration of an AP Add Invoices screen display;

Figure 91 is an illustration of a Vendor Invoice display;

Figure 92 is an illustration of a Daily Vendor Verification screen display;

Figure 93 is an illustration of a Vendor Payment Register screen display;

Figure 94 is an illustration of an Add Invoices screen display having superimposed thereon a dialog window used to enter the period for a freight bill;

Figure 95 is an illustration of an Accounting Setup defaults screen display;

Figure 96 is an illustration of a display screen used to add an account to a Chart of Accounts file;

Figure 97 is an illustration of a Chart of Accounts screen display;

Figure 98 is an illustration of a Chart of Accounts—Account Detail screen display;

Figure 99 is an illustration of an Accounts Receivable Customer Setup screen display;

Figure 100 is an illustration of an Accounts Receivable screen display;

Figure 101 is an illustration of an Accounts Receivable—Account Detail screen display;

Figure 102 is an illustration of an Accounts Payable Partner Setup screen display;

Figure 103 is an illustration of an Accounts Payable screen display;

Figure 104 is an illustration of an Accounts Payable—Account Detail screen display;

Figure 105 is an illustration of an account distribution pop-up screen used to allocate an invoice amount between different accounts:

Figure 106 is an illustration of a General Journal output screen display;

Figure 107 is an illustration of General Journal input screen display;

Figure 108 is an illustration of a screen display used for financial report definition;

Figure 109 is an illustration of a resulting financial report:

Figure 110 is an illustration of a screen display used for trend report definition;

Figure 111 is an illustration of screen display including a dialog used to select trend frequency;

Figure 112 is an illustration of screen display including a window in which trend report data are displayed;

Figure 113 is an illustration of a trend report graph screen display;

Figure 114 is a block diagram of a human resource infrastructure for a virtual organization performance evaluation model;

Figure 115 is an illustration showing in greater detail portions of the human resource infrastructure of Figure 114;

Figure 116 is an illustration of a file structure used to track all performance metrics of interest;

Figure 117 is an illustration showing in greater detail the Factual Measurement Review process of Figure 115;

Figure 118 is an illustration of a seris of selection menus used to select an employee for whom a factual employee evaluation report is to be displayed;

Figure 119 is an illustration of screen displays used to display factual performance analysis results in accordance with an exemplary embodiment of the invention;

Figure 120 is an expanded view of the multiple period screen display of Figure 119;

Figure 121 is an illustration of a dialog displayed as a result of qualification of user inputs during the course of adding invoices;

Figure 122 is an illustration of a further dialog of a similar type as that of Figure 121;

Figure 123 is an illustration of yet a further dialog of a similar type as that of Figure 121;

Figure 124 is a partial illustration of a pop-up menu of options available during vendor invoice display;

Figure 125 is a partial illustration of a pop-up menu of options available during vendor invoice display, showing options not shown in Figure 124;

Figure 126 is an illustration of a pop-up menu of options available during customer invoice display;

Figure 127 is an illustration of a pop-up menu of options available during

display of items sold;

Figure 128 is an illustration of a pop-up menu of options available during display of sales records;

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Figure 129 is a block diagram illustrating a knowledge base, the expression of the knowledge base in screen displays of the present system, and a manner in which the knowledge base is increased;

Figure 130 is an illustration of an RMA Reports screen display;

Figure 131 is an illustration of an RMAs pending approval screen display;

Figure 132 is an illustration of an open RMAs screen display;

Figure 133 is an illustration of a Shipping Reports screen display;

Figure 134 is an illustration of a summary shipping report screen display;

Figure 135 is an illustration of a detailed shipping report screen display;

Figure 136 is an illustration of a POD screen display;

Figure 137 is an illustration of an Accounting Reports screen display;

Figure 138 is an illustration of a date-range-limited accounting report screen display;

Figure 139 is an illustration of an invoice screen display;

Figure 140 is an illustration of a multiple invoice search screen display;

Figure 141 is an illustration of a customer collections screen display, showing a Get Problems dialog;

Figure 142 is an illustration of the customer collections screen display showing a Searches pick box;

Figure 143 is an illustration of the customer collections screen display showing a Select Problem dialog;

Figure 144 is an illustration of the customer collections screen display showing a Select Tickler dialog;

Figure 145 is an illustration of a purchasing output screen display;

Figure 146 is an illustration of an expediting output screen display;

Figure 147 is an illustration of a receiving output screen display:

Figure 148 is an illustration of an installation output screen display;

Figure 149 is an illustration of a shipping output screen display;

Figure 150 is a flow diagram illustrating a percolation process for purchasing;

Figure 151 is a flow diagram illustrating a percolation process for receiving;

Figure 152 is a flow diagram illustrating a percolation process for shipping;

Figure 153 is a flow diagram illustrating a percolation process for installation/assembly;

Figure 154 is a flow diagram illustrating supply chain integration/management features of the present invention;

Figure 155 is a diagram of a first electronic template for specifying a customized business relationship;

Figure 156 is a diagram of a second electronic template for specifying a customized business relationship;

Figure 157 is a block diagram of a client/server business automation system in which a common database supports both end-to-end business process automation and sales force automation;

Figure 158 is a more detailed representation of sales force automation capabilities of the the system of Figure 157;

Figure 159 is a detailed listing of RMA types and sub-types;

Figure 160 is an illustration of a screen display showing customer-specific automatic RMA approval criteria; and

Figure 161 is an illustration of a Sales Force Automation screen display.

# DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS Architecture

Referring now to Figure 2, the present automated business process may be imagined as a kind of information assembly line. A first system user, or "information worker," having for example a Sales assignment or activity focus, initiates an automated, end-to-end business process by entering information into a client/ server single relational database, which forms a common hub of the automated business process. The user's entry is qualified, or "quality checked," as repre-

sented by a checkvalve. Such qualification is "experiential," i.e., derived from actual business experience, and differs qualitatively from the type of data validation typically performed in database systems. If the user's entry fails scrutiny by the system, it cannot be committed to the database. Similarly, the business process cannot continue to the next user. As a result in part of such experiential qualification, verifiable and usable management and enterprise information may be made readily available.

In the case of conventional systems, by contrast, a team of software engineers write an application based on input from groups of users from different departments to produce a definitive, linear workflow. The users, however, cannot anticipate the need for various features prior to using the software. Furthermore, the conception of the programmers may often differ significantly from that of the users. The result often leaves much to be desired. In SAP, BAAN, and other database systems, exceptions to the workflow must all be programmed. Updates are delayed until the next version of the software, at which point the same cycle repeats. Meanwhile, users suffer. Furthermore, because different users have different concerns, little consideration is given to the up-stream and down-stream effects of different user's actions. There results a "disconnect" between the behavior of the system and day-to-day real-world needs.

In the present system, navigation of the workflow is soley determined byt he access authority of the user. Workflow components are all pre-existing and pre-programmed. User inputs to the system, however, do undergo a qualification process. Qualification of user inputs has multiple facets. First, each user is accorded limited access privileges. An authority check is therefore performed to ensure that the user is authorized to make the entry being attempted. Second, the entry is checked in accordance with business rules that embody best practice as determined from an analysis of expected parameters and how various values of those parameters affect possible outcomes downstream. Thirdly, entries, even after then are

committed to the database, are subjected to intelligent consistency checks in order to detect discrepancies and provide feedback to allow for correction. If input qualification is successful, then succeeding events in the sequential business process are triggered.

Each worker in turn builds upon the information base established by preceding workers, and each workers entries are rigorously qualified. For example, following sales, process flow may continue to Sales Support, Accounting, Purchasing, Receiving, Assembly, and Shipping.

During the process external influences occur. An external influence may be a communication from a customer or vendor, for example, to either convey information or to view information stored in the central database. An example of an external influence might be a vendor special rebate. Information may be conveyed by electronic means (e.g., Internet, intranet, EDI, satellite, remote terminal direct-dial), human-mediated telecommunications (e.g., email, phone, fax), or by physical means (letter, visit, etc.).

As compared with the conventional business process of Figure 1, the circular automated business process of Figure 2 revolves around a single integrated database that accumulates information regarding every important activity of every user and defines a non-repetitive process. Furthermore, as compared to the essentially non-reversible process of Figure 1, the process of Figure 2 is reversible. As seen in Figure 2, following Shipping is a Return/RMA (Return Merchandise Authorization) activity, or, more generally, a reversal activity. This activity enables the forward process to be reversed, or backed out of step-by-step, as part of the overall automated business process.

The cumulative nature of the database of Figure 2 and the sequential nature of the business process enables incisive factual analysis in the areas of employee/ vendor performance and customer satisfaction, promoting fairness and personal responsibility. Whereas a human supervisor may effectively supervise only a lim-

Figure 2 provides for each employee what may be regarded as a "virtual mentor:" the user is guided during use of the system to prevent common mistakes (in fact, all mistakes made collectively by the all of the user's predecessors functioning in the same assignment), and the user's performance is continuously tracked and made accessible. Strengths and weaknesses in the employees performance may recommend certain changes in assignments—which changes may be made relatively easily by the employee because of the intuitiveness and intelligence of the system. An important aspect of virtual mentoring is an "open-book" information access policy: users, although they may limited access to input information, typically have few if any limits on access to information. The virtual mentoring process, described in greater detail hereinafter, promises to make the virtual office and telecommuting, with all its attendant advantages, a practical reality for a much wider segment of the workforce.

Referring now to Figure 3, a block diagram is shown of a computing environment in which the present invention may be used. A Web-enabled, client/server relational database management system (DBMS) is provided storing a database including files belonging to different business domains, e.g. a products domain, a payments domain, a financial performance domain and a personnel domain. (The term "product" is used generically herein to refer to items sold and may be tangible goods, financial products, subscriptions—anything that may be bought and sold in a discrete transaction.) Also provided are code modules pertaining to each of the different domains. Customers and vendors may obtain access to the database through the Internet or the like. The physical location of the database therefore becomes irrelevant—the database can be everywhere in the world, either through wired communications or wireless communications. A firewall (or other security scheme, such as encryption, implemented in either hardware or software) may be provided between the Internet and the Web interface of the DBMS. Internal clients

may be connected to the DBMS through a local area network (LAN) or through an intranet, using the Web interface.

#### Web User Interface

The Web interface to the database, particularly as seen by the customer, will presently be described in greater detail.

Referring now to Figure 4, within a principal navigation path a Web user is presented with buttons representing various options. In an exemplary embodiment, these options relate to, respectively, products, returns/repair, tracking, reports, accounting and log off. Two further options are also presented, PID maintenance and APL maintenance, the functions of which will be made clear hereafter.

In the example of Figure 4, the Products button is assumed to have been selected, resulting in the display of various search options. In the illustrated embodiment, Options 1-4 draw from an electronic products catalog directly. A product listing may be obtained by product category, all manufacturers (Option 1) or a single manufacturer (Option 2), or by manufacturer, description or part number (Options 3 and 4). Options 5-8 do not draw from the electronics products catalog directly but instead allow ordering to be performed without interacting directly with an electronic products catalog as described hereafter.

Selecting Option 1 causes a screen such as that of Figure 5 to be displayed, in which various product categories are displayed next to corresponding buttons. When the "Accessories & Supplies" button is selected, a screen such as that of Figure 6 is displayed, in which various sub-categories of products are displayed next to corresponding buttons. This division and sub-division may have any number of levels. In the illustrated embodiment, selection of the "Cables & Connectors" button causes a screen such as that of Figure 7 to be displayed, showing still a further level of sub-division. When the "Printer" button is selected, a screen such as that of Figure 8 is displayed, showing printer cables from the electronic product catalog. The user may check items of interest and click on "Show Selected Items,"

whereupon only the checked items are displayed. The user may search within the selection, reset (causing all of the items to again be displayed) or initiate a new search by clicking on corresponding buttons at the bottom of the page. For example, if the user checks the first item and clicks "Show Selected Items," a "shopping basket" screen such as that of Figure 9 is displayed. The user may return to the previous products list, search for more items, create a quote with the displayed items by entering a quantity for each item, or empty the shopping basket.

Selecting Option 2 from the product search page (Figure 4) causes a screen such as that of Figure 10 to be displayed. The user inputs a manufacturer's name, or clicks on a letter of the alphabet to choose from a list of manufacturers whose names begin with that letter.

Selecting Option 3 from the product search page (Figure 4) causes a screen such as that of Figure 11 to be displayed. The user inputs one or more of the following items of information: manufacturer, item description and manufacturer part number. Multiple part numbers may be entered and search simultaneously by clicking the "Search multiple products" button.

Selecting Option 4 from the product search page (Figure 4) causes a screen substantially similar to that of Figure 10 to be displayed.

Selecting Option 5 from the product search page (Figure 4) causes a screen such as that of Figure 12 to be displayed. This screen is similar to that of Figure 11. However, instead of merely searching the electronic catalog, the search identifies products that meet the criteria specified and that have previously been purchased on the user's account ("core products"). The search may be date limited. Alternatively, the user may choose to display all core products by clicking the corresponding button. Figure 13, for example, shows a list of core products resulting from the search criterion "Compaq."

Selecting Option 6 from the product search page (Figure 4) causes a screen such as that of Figure 14 to be displayed. Rather than purchase products item by

item, the present system allows the user to store groups of items that work together as pre-configured products, each identified by a user-assigned Product group ID (PID). The user may search for a specific PID or multiple specific PIDs, or the user may show all PIDs. An example of a screen display that results when the user clicks "Show all PIDs" is shown in Figure 15. PIDs may be regarded as a "favorite quotes" list that may be repeated reused by the user. An example of a PID is shown in Figure 16.

Selecting Option 7 from the product search page (Figure 4) causes a screen such as that of Figure 17 to be displayed. In addition to PIDs, the present system allows Approved Product Lists (APLs) to be stored, including both a company APL and a personal APL. The user may search an APL or show an APL in its entirety.

Selecting Option 8 from the product search page (Figure 4) causes a screen such as that of Figure 18 to be displayed. This option allows previous quotes to be found and displayed. The user may specify a particular quote by quote number or may display the quotes for the current day or the current week. The quote or quotes that are found are displayed within a screen display such as that of Figure 19. Selecting a quote and clicking "Show selected Quote" causes a screen such as that of Figure 20 to be displayed. Various actions may be taken with respect to the quote including: add/change/remove products; arrange the order of quote items; save the quote for future reference; place an order based on the quote; and duplicate the quote into a new quote. The user may also return to the last search results of the Products List.

PIDs and APLs may be maintained on-line by the user. Clicking on the PID Maintenance button within the screen of Figure 4 causes a screen such as that of Figure 21 to be displayed. The user may create a new PID or review existing PIDs. For example, clicking on the "Show PIDs currently Active" causes a screen such as that of Figure 22 to be displayed. The user may click on a PID number to view

the PID in detail.

Clicking on the APL Maintenance button within the screen of Figure 4 causes a screen such as that of Figure 23 to be displayed. The user then chooses between company APL and personal APL. Clicking on "Company APL," for example, causes a screen such as that of Figure 24 to be displayed. The user may add or delete an item to or from the APL by manufacturer part number or take any of various action with respect to the APL, including: search for products to add to the APL; delete items from the APL; end APL maintenance; and sort APL items by part number, manufacturer, price or description.

Clicking on the Returns/Repair button within the screen of Figure 4 causes a screen such as that of Figure 25 to be displayed. This screen allows a user to identify, in any of various ways, a product to be returned or repaired. For example, the product may be identified specifically by serial number, asset tag number, or the order to which the product belongs can be identified by customer purchase order number, customer invoice number, customer Purchase Requisition Number (PRN), or customer Request For Quote (RFQ) number. Clicking on the "More Search Options" button causes a screen such as that of Figure 26 to be displayed. From this screen, the user can search for a product to be returned by manufacturer name, part number and/or purchase date. The user may also look up Return Merchandise Authorization (RMA) records by date. Figure 27, for example, shows RMAs created between 6/2/98 and 7/1/98. Clicking on the RMA number causes the corresponding RMA record to be displayed as shown, for example, in Figure 28.

Clicking on the Tracking button within the screen of Figure 4 causes a screen such as that of Figure 29 to be displayed. The user selects the type of tracking information desired: sale order status, return product and service part status, product purchase history, or return and service history. If other status information is desired, the user may describe the desired information and submit a an email

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request. In essence, the present system allows remote users, including customers, vendors, manufacturers, etc., to view relevant status information pertaining to most or all of the product life cycle stages: purchasing, receiving, shipping, installation/assembly, billing, return/service, etc.

Clicking on "Sales Order Status" (Figure 29) causes a screen such as that of Figure 30 to be displayed. A sales order may be identified by customer purchase order number, customer invoice number, customer Purchase Requisition Number (PRN), or customer Request For Quote (RFQ) number or by identifying an item belonging to the order, by serial number or asset tag number. If the user does not have any of this information, the user may search for sales orders by manufacturer, part number, and/or date range. Figure 31, for example, shows the result of searching for sales orders by manufacturer (Compaq).

Clicking on "Return Product & Service Part Status" (Figure 29) causes a screen such as that of Figure 32 to be displayed. RMAs may be identified by RMA number, temporary case number, quote number, or by any of the various pieces of information referred to in previously (PO number, etc.). Figure 33, for example, shows RMAs identified by PO number. The user checks one or more RMAs of interest and then selects an action to take, e.g., "Get Freight Carrier & Tracking #" or "Ship to Address." Selecting "Get Freight Carrier & Tracking #" causes a screen such as that of Figure 34 to be displayed.

By clicking on "Product Purchase History" (Figure 29), the user may display by date range items previously purchased. Figure 35, for example, displays items purchased from Oct. 4, 1998 to Oct. 5, 1998. Similarly, clicking on "Product Return History" causes a screen such as that of Figure 36 to be displayed. Figure 37 displays items returned from Apr. 1, 1998 to May 1, 1998.

Clicking on the Reports button within the screen of Figure 4 causes a screen such as that of Figure 38 to be displayed. The reports may include such reports as the following: Back Order Reports, Monthly Sales Reports, Packing

Slips, RMA Reports, Shipping Reports, etc.

Clicking on "Back Order Reports" (Figure 38) causes a screen such as that of Figure 39 to be displayed. Some units of an item may have been shipped but not all. If so, the 1st Ship and Last Ship fields indicate when the first unit of that item was shipped and when the last unit was shipped.

Clicking on "Monthly Sales Reports" (Figure 38) causes a screen such as that of Figure 40 to be displayed. The user selects a date range or a month and clicks "Take Action." A display such as that of Figure 41 results, listing each item sold on the user's account during the period, including total quantity, total cost, average unit cost and number of times ordered. Also displayed is the status of each purchase order for the period, the grand total of all purchases for the period, and the number of orders.

Clicking on "Packing Slips" (Figure 38) causes a screen such as that of Figure 42 to be displayed. Packing slips may be searched by providing a piece of identifying information in similar manner as described previously or may be identified by month. Figure 43, for example, shows packing slips for the month of Oct., 1998. Clicking on the packing slip number causes the packing slip to be displayed, as shown in Figure 44.

Clicking on "RMA Reports" (Figure 38) causes a screen such as that of Figure 130 to be displayed. The user is presented with various options, for example, show approved RMAs, show pending RMAs, show all open RMAs, etc. Clicking on Option 1 causes a screen such as that of Figure 131 to be displayed. By clicking on an RMA number, details of the RMA may be displayed. Clicking on Option 2 causes a similar screen to be displayed, showing only RMAs that have been approved. Clicking on Option 3 causes a screen such that of Figure 132 to be displayed, showing all open RMAs.

Clicking on "Shipping Reports" (Figure 38) causes a screen such as that of Figure 133 to be displayed. The user is prompted to specify a date range for gener-

ating a shipping report. Clicking on "Submit" causes a screen such as that of Figure 134 to be displayed, summarizing the number of shipping records found. Clicking on "Show All Details" causes a screen such as that of Figure 135 to be displayed. Items shipped during the specified period are displayed by PO number. Clicking on "POD" for a particular item causes Proof of Delivery information for that item to be displayed as shown, for example, in Figure 136. In addition, the user may request email status updates for an order by clicking the corresponding link. As the order status changes, the user will then be automatically informed by email.

Clicking on the Accounting button within the screen of Figure 4 causes a screen such as that of Figure 137 to be displayed. The user can retrieve particular invoices and credit memos by supplying any of various pieces of identifying information, or can retrieve invoices and credit memos by date range. Retrieving by date range causes a screen such as that of Figure 138 to be displayed. By clicking on the appropriate button, the user can display a selected invoice, purchase order, or packing slip. Clicking an invoice button, for example, causes a screen such as that of Figure 139 to be displayed.

The user can also enter a list of invoice numbers to be retrieved. More particularly, selecting Option 8 within the screen of Figure 137 causes a screen such as that of Figure 140 to be displayed. The user can then enter as many invoice numbers as desired.

A user may create one or more quotes but not act on the quotes for a considerable period of time. The quotes serve as an expression of interest on the part of the user. As time passes, however, the liklihood of a quote becoming an order decreases. In accordance with one aspect of the invention, such quotes are automatically identified, and communication with the users is undertaken so as to increase the liklihood of quotes being converted to orders. The communication may be Web-based and may, for example, take the form a promotional offer.

As may be appreciated from the foregoing description, the system provides for "information-rich" invoice payment status tracking and display. The simple knowledge that an invoice is open (has not been paid) is of little value. The more pressing question is why a customer invoice should be paid (e.g., has a return question been resolved?) or why vendor invoice has not been paid (e.g., was sales tax incorrectly charged?). The present system is designed to track such invoice payment status information. Because the database is Web-enabled, the same information may be readily displayed to customers and vendors, avoiding the need for telephone calls, "telephone tag," etc.

The present Web user interface is designed to accomodate a wide range of users, ranging from unsophisticated to sophisticated. To accomodate the unsophisticated user, any of various bits or pieces of information may be used to retrieve a record, for example the approximate purchase date. To accomodate the sophisticated user, multiple identifiers may be entered at a time in order to retrieve multiple records at a time, e.g., multiple part numbers, invoice numbers, RMA numbers (Return Merchandise Authorization numbers, described more fully hereafter), etc. This feature allows a user to quickly access a collection of desired information quickly with a single click. This feature is especially powerful in connection with RMAs. Instead of selecting items one at a time in order to create return requests, a user may enter several or many identifiers of a particular type (e.g., P.O. numbers, invoice numbers, asset tag numbers, etc.) and create a corresponding number of return requests.

Preferably, this same multiple-entry feature is provided in an internal client user interface in addition to the Web user interface.

# Web Security

Doing business electronically poses various security risks. In the case of consumer-oriented Web commerce, much attention has been focused on secure transmission of credit card numbers and various security mechanism have been

made available. In the case of business-to-business Web commerce of the type described, payment is usually not by credit card except for very small transactions. Instead, security risks involve potential abuse of the system by external parties or even internal parties. The present invention implements various security mechanisms to eliminate or minimize the potential for such abuse. Fundamentally, the security mechanisms are based on concepts of authority and lineage. A simple example is that the ship-to address for an order cannot be changed on-line. This prevents someone from ordering products and having them sent to their home or elsewhere.

Lineage relates authority to organizational hierarchy. The organizational hierarchy of Web users for a particular customer may be represented in tree fashion. A user at the leaf level may be given authority to get quotes but not to place orders. A user at a next-higher level may be given authority to view the quotes of users within a limited sub-tree and may be given limited authority to place orders. A user at the root of the tree may be given unlimited authority, from the standpoint of the customer, to view quotes of any user and place orders in any amount.

Referring generally to Figure 46, in the case of a typical company, various end users will be given different levels of authority, e.g., to create quotes but not purchase, to track orders, to perform returns, to view order information via the Web, or, in the most limited case, to have no access to Web purchasing information. To initiate the purchase process, an end user makes a quote request to his or her supervisor, who must approve the request. The request may require multiple further approvals, for example of an MIS department, an accounting department, a material management department, etc. In a typical scenario, the material management department will forward an approved request to a purchasing department. Authorized persons within the purchasing department may then send an order virthe Web. In every instance, when Web access is attempted (and in fact every time a TCP packet is received), a user's authority is checked and that user's interaction

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via the Web is limited to the scope of that authority.

External Web authority information is stored for each customer in a customer file. An example of a customer record is shown in Figure 47. From the customer file, a company price list record such as that of Figure 48 may be displayed. For each customer, a price basis may be agreed upon for items that the customer buys regularly. External Web authority information is stored as part of the customer price list.

The manner in which a external Web user's authority is specified is illustrated in a series of figures beginning with Figure 49. First, the user's name is entered, first name (Figure 49) then last name (Figure 50). An employee number may then be entered (Figure 51), absent which an arbitrary employee number is generated automatically. A dialog then asks whether the user is authorized to make Web purchases (Figure 52). If the user is authorized to make Web purchases, then a further dialog calls for a purchase limit, if any, to be specified (Figure 53). A confirmation dialog is then displayed (Figure 54). The customer price list record following addition of the Web user with specified authority is shown in Figure 55.

The specific limits placed on a user's purchase authority may vary. Other examples of limits that may be desired by some companies are a limit on the number of purchase orders per day, a limit on the total amount of purchase orders per day, a time-of-day limitation as to when orders may be placed, etc. Various other security parameters may be added. Such limits may be set and changed remotely via the Web and given immediate effect within the system.

Limits are also placed on internal users access to security parameters so as to provide customer assurance that there exists no potential for internal abuse of the system (e.g., authorizing a crony to make illicit purchases on a customer account). A user may have authority to use (view) but not approve changes to certain security parameters, and may have authority to use and approve changes to other security parameters. In an exemplary embodiment, the authority of various

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users is set as illustrated in Figure 45.

# Catalog Management

In the case of a company based on the conventional model of real inventory, Web catalog management is relatively straightforward. In the case of a company based on the model of virtual inventory, "the world is your warehouse." Intelligent catalog management is therefore of vital importance. Intelligent catalog management, in an exemplary embodiment, is based on a concept of "baseline." A baseline is a collection of products that functions as a standard of comparison. In an exemplary embodiment, there is both a vendor baseline and a customer baseline. Using the baseline concept, a product list without duplicates may be displayed. Furthermore, there may be displayed to the customer only products that there is some reasonable likelihood of the customer buying.

On the vendor side, one vendor is selected to serve as the baseline vendor. The baseline vendor will typically be a vendor found to have the most comprehensive inventory, the most useful categorization scheme, etc., and may be varied as often as desired. To create an update baseline, product listings of vendors are compared with the current baseline. If a product is already part of the baseline, as determined by manufacturer part number, then the product is grouped under the same baseline listing. For example, the same computer may be available through multiple different vendors. Rather than creating multiple product listings for the same product, these multiple product listing are consolidated under a single baseline product listing. If a product is not in the baseline, it may be added to a "supplemental baseline." If the baseline vendor does not carry a particular product but one or more alternate vendors carry the product, then the product will be listed in the supplemental baseline, again without duplicates.

After an updated baseline has been compiled, it is compared with the previous baseline. A product listing may be found: 1) in the old baseline only; 2) in the new baseline only; or 3) in both. Product listings in categories 1 and 2 are flagged

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as discontinued products and new products, respectively.

During the foregoing process, product cost and customer pricing information is updated. Also updated are URLs to vendor and manufacturer Web sites.

These URLs may be used to refer Web users to these sites for product information.

Product list updating may occur continuously or at regular intervals using "pull" technology, "push" technology, some combination of the two, or some other information retrieval technology or combination of technologies.

On the customer side, a customer baseline is formed by combining: 1) customer APLs (Approved Product Lists) for all customers or some subset of customers; and 2) historical purchase information, taking into account such factors as purchase date, volume, etc. There results a non-duplicative list of products customers have bought or are presently approved to buy. Products in the vendor baseline may be flagged as belonging or not belonging to the customer baseline.

As a result of the baseline concept and the power of the DBMS, great flexibility is provided in the manner in which products may be displayed. A user may search the product file and request to see new products, discontinued products, vendor baseline products, without duplicates, vendor baseline products expanded to show duplicates, customer baseline products, customer-specific APL products, etc. In this manner, the seeming chaos that would otherwise result from the "infinitude" of products embraced by the notion of virtual inventory is tamed and made manageable.

Much of the difficulty of successfully implementing a cohesive business-to-business Web commerce solution has resulted from different aspects of a company's business being automated on different computing platforms. As illustrated in Figure 56, for example, a product catalog may be implemented on one platform, shipping implemented on another platform, accounting implemented on still another platform, etc. To interface all of these different functions to the Web requires multiple interfaces.

By using a single Web-enabled database and providing for all necessary functions within a single database schema, the present Web commerce solution avoids the daunting complexity characteristic of the prior art. Referring to Figure 57, a single universal interface may be used to place the entire contents of the database, or as much of those contents as desired, on the Web.

## Database Schema

An important feature of the present system is that a single database, described by a single database schema, is used to automate an overall business process, end-to-end. To do so, the schema must, understandably, be quite complex. A general outline of the schema is shown in Figure 58. The complete schema, or structure diagram, is set forth as Appendix A.

Referring to Figure 58, the manner in which various automation processes relate on an inter-domain basis may be appreciated. The products domain is represented in approximately the upper third of Figure 58 and includes sales functions (5801) and shipping/receiving functions (5803). Purchasing and installation functions, now shown in Figure 58, are shown in the microfiche appendix. The payments domain is represented in approximately the middle third of Figure 58 and includes AP functions (5805), AR functions (5807) and return functions (5809). The financial performance domain is represented in approximately the lower third of Figure 58 and has financial information automatically posted to it from the payments domain, as described more fully hereinafter. The personnel domain is not shown in Figure 58 but draws upon information from the other domains in a manner described more fully hereinafter.

In an exemplary embodiment, the relational database management system provides both a "Quick Switch" option whereby any base table may be viewed or a "Related Switch" option (described in greater detail hereinafter) whereby a base table may be selected from which is then displayed a row related to a selected row in a current table. Various user options may be provided programmatically. Table

1 is a list of most of the base tables and corresponding options in an exemplary embodiment of the invention.

Table 1

[ <del></del>	Γ
Base Table	(Options)
Addresses	
AllocatedIndex	
AP_Registers	
AR_Registers	
Chart of Accets	
Checking_Acts	
Ch Statements	
Claims	
Commission Reg	Quick invoice lookup Quick credit lookup  Get register Get not approved Get approved but not paid  Approve Disapprove  Change payment date  Pay

Table 1

(Options)
Quick lookup by period Quick transaction lookup Quick PO lookup Quick MWS lookup Quick invoice lookup Quick credit memo lookup  Get not approved Approve Get approved Schedule payment  Notes  Hold Get hold  Reset back 1  Check commissions Recalculate commissions
Change commission Email
Quick memo lookup Credits not taken Credits taken Credits on hold Internal credits not taken Internal credits taken Hold credit memo Internal notes Customer notes Internal status change

Table 1

Base Table	(Options)
Customers	Add employee purchase record
	Approve customer
	Find employee
	List employees
CustPayments	Get not approved Get not posted Approve Post
Cust_invoices	Quick invoice lookup
	Cust invoice summary Print selection Comm report
	Get AR report selection Get not issued Get not paid Get no charge Get pre-paid
	Close—no charge
	Split invoice
	Join 2 invoices
	Issue invoices
	Check for not issued invoices
Defaults	
DropShipments	
FAX Templates	
Item Details	

Table 1

Base Table	(Options)
Items Sold	Quick MWS# lookup Add MWS to fast order
	Open order reports Expedite/availability
	Customer notes CSR notes
	Status (restricted)
	Expand to all items sold Remove shipped Check selection again Update MWSs
	Clear updates
	Tech expedite Clear tech expedite
	Get in house not rovd Receive in house
	Get installation not revd Receive installation
MWSLog	
OverUnderPay	Get not reconciled Get not cleared Get open Close
Packing Slips	
Partners	Find by expense account
	Vendor priority maintenance
Personnel	
PID ItemsSold	
PIDs	
Products	

Table 1

Base Table	(Options)
Purchase Stats	
Purchasing	
Quote Detail	
Rcvd Boxes	
Receiving	Receive Installation Update MWSs Double, wrong, defective, or no MWS Fill allocation Freight check Recover receiving register
Report	
RMA	Quick RMA lookup Quick case lookup Quick PO/PID/PRN/RFQ Get Web RMAs Update RMAs Expected cred summary Edit fax cover sheet notes

Table 1

Base Table	(Options)
Sales Records	Quick MWS# lookup Quick quote# lookup Quick PO/RFQ/PID/PRN LU/conf.
	PurchChecks
	Update MWSs
	Expedite/availability/purch
	Urgent Not Urgent
	Daily PO confirmation
	Get quotes Print quote confirmation
	Quotes requiring REVIEW Cancel REVIEW
	Get purchasing records Print purchase summary
	Clear updates
	Lock Unlock Get unlocked
	Change TPO to real PO Get temporary POs
	Get Web quotes
Sales_Reps	
Sales_Support	
Sales_Taxes	Recalc selection
	Add sales tax

Table 1

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Dogo Table	(Ontions)
Base Table	(Options)
Shipping	Quick lookup by period
	Quick lookup by pickup number
	_ Following works in selection
	Get not reconciled open
	Get not reconciled closed
	Get reconciled open
	Get reconciled closed
	Installation
	Update MWSs
	Freight check
	Reconcile freight
	Recover register
	Merge registers
TaxRegister	Due dates
	Update user selection
	Print user selection
	Sets window
Tax_Tables	

Table 1

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Base Table	(Options)
Ven Pmnt Regs	Quick invoice lookup Quick credit lookup
	Get register Get not approved Get approved but not paid
	Approve Disapprove
	Change payment date
	Pay
	Get regs with credit balances Vendors with credit balances
	Close register Open register
VenCollection	Quick memo lookup Quick invoice lookup Quick payment register lookup
,	Get not used Get excess/not distributed Get distributions
	Get expected memos Reconcile expected memo
	Get not pre-approved Pre-approve
	Get pre-approved Approve
	Get approved Schedule
	Reset status back 1
	Cancel credit memo
VenMultiCred	

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Base Table	(Options)
VenRecExpCred	

Table 1

Base Table	(Options)
Ven_Invoices	Quick invoice lookup
	Quick voucher lookup
	Quick check lookup
	Search selection by date
	Verify selection
	Daily verification
	Gat all not paid
	Get all not paid Get not reconciled
	Get reconciled  Get reconciled
	Get reconciled
	Reconcile with credit
	Pre-approve
	Get pre-approved
	Remove pre-approved
	APPROVE
	Get approved
	Schedule payments
	Schedule pre-paid payments
	Close selection
	HOLD selection
	Get hold
	Reset status back 1
	Edit terms/payment/vouchers
·	Integrity check
	Temporary notes
·	Update invoice
	Mark ready for review
	Get ready to review
	Mark reviewed
	Get reviewed
	Gerreviewed

Various screen displays showing the options pop-up menu for that screen display are shown in Figure 124 through Figure 128.

# Business Process-Overview

An overview of the present automated business process is shown in Figure 59. In an illustrated embodiment, the automated business process has nine entry points, designated E1-E9, at which users enter information into the system. Interaction with the system is carefully controlled and user inputs carefully qualified to ensure, to the greatest degree possible, error-free operation.

The business process is customer-driven. The first entry point E1 in the business process is Sales/RMAs. In response to a customer request, a user having responsibility for E1 enters information about the customer request into the database. If the request regards sales, the information is checked and converted to a Master Worksheet (MWS). At an entry point E2, the responsible user groups MWSs for purchasing and places orders. Information is assembled for later use in receiving (E3), installation (E4), and shipping (E5). Respective users at these entry points make entries into the database which as confirmed against the assembled Purchasing/Shipping/Receiving/Installation (PRIS) information to verify correctness.

Unlike prior art systems, the present system provides the option of carrying inventory or operating under the concept of virtual inventory. In accordance with the concept of virtual inventory, all of the goods available for purchase in all of the warehouses throughout the world are regarded as available inventory. Because the Web allows business to take place at light speed, the difference between physical inventory and no physical inventory can be merely the click of a button on a computer screen. As goods are received and shipped, these events are tracked by a virtual inventory process in which all items are presold. In one aspect of the invention, virtual inventory is defined as each vendor order item being related to at least one item sold record created in response to receiving user demand informa-

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tion directly from a user; i.e., the system is "demand driven."

Virtual inventory may be more fully understood in relation to the data processing concept of pipelining. Some delay occurs as the data pipeline is initially filled. Thereafter, results are produced at every cycle. The initial delay is the time required to perform a data operation on the data inputs. Similarly in the case of goods. An initial inventory of goods may be required to satisfy demand during a time period from when a demand is received until that demand can be filled—i.e., the manufacturing cycle. Thereafter, supply and demand should be exactly balanced. As demand increases and decreases, the rate of manufacture is varied accordingly such that supply and demand remain exactly balanced. In the case of a reseller, the manufacturing cycle is zero. The requirements for real inventory are therefore zero, enabling pure virtual inventory. In other businesses with non-zero manufacturing cycles (from days to weeks, months or years), the foregoing concept of virtual inventory may still be applied such that, in the "steady-state" condition, supply and demand remain exactly balanced.

Where physical inventory is required or desirable, it may be treated simply as an internal demand as opposed to a customer demand. In both cases, the demand is represented by an MWS. In the case of internal demand, however, the customer is the business itself.

Referring still to Figure 59, entry points E6 and E7 relates to customer and vendor payments, respectively. Assembled information is input to A/P and A/R modules. Customer payments are received and entered in conjunction with the A/P module. Vendor payments are made in conjunction with the A/R module.

A general ledger (GL) module tracks transactions and their financial implications in real time. It therefore receives information from the A/P, A/R and virtual inventory modules as well and entry points E6 and E7. Bank statement inform. In is also input to the general ledger module at entry point E8.

The customer request, instead of being for sales, may be an RMA request.

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Information is then input from E1 to an RMA module. A reverse process in then executed, begun by an RMA number being communicated to the customer. In the typical case, the customer then returns merchandise authorized for return. The returned merchandise is received (entry point E3) in conjunction with the RMA module and receiving information portion of the assembled information. The RMA module communicates with the GL module so that appropriate accounting entries may be made.

The effect of the overall business process is two-fold. First, a response to the customer's input is produced and communicated back to the customer. Second, during the course of the business transaction, a wealth of historical data are accumulated that may then be subjected to factual analysis for purposes of ensuring customer satisfaction, evaluating employee performance, and evaluating vendor performance.

In the following description, the course of an order will be described within each of the domains identified in Figure 3, as follows: in the product domain, from quote to shipment, as well as return (although rather atypical, returns are nevertheless a common occurrence); in the payments domain, from invoice to payment (both customer and vendor); in the financial performance domain, from cashflow to financial statements; and finally, in the factual performance domain, from parameters such as time, quantity and dollar volume to individual and group employee performance.

# Sales

As may be appreciated from the foregoing description, an order may be preceded by a quote. Quotes may be requested and orders may be placed in writing (e.g., by fax), verbally (e.g., by phone), or electronically via the Web. More generally, order information may be conveyed by electronic means (e.g., Internet, intranet, EDI, satellite, remote terminal direct-dial), human-mediated telecommunications (e.g., email, phone, fax), or by physical means (letter, visit,

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etc.). Regardless of the origin of the quote or order, the quote or order becomes a sales record.

A screen display that may be used to view sales records is shown in Figure 60. Quotes are each assigned a Quote number having a "Q" prefix. Orders are tracked via records referred to as "Master Work Sheets" (MWS). A Master Worksheet contains all of the vital information related to an order. As seen in Figure 60, orders are each assigned a MWS number having a MWS prefix. The screen display of Figure 60 includes a status column in which the status of each quote and order is indicated, e.g., WebSubmit, WebQuote, Purchasing, etc. The status of each record can therefore be readily ascertained and tracked.

Referring to Figure 61, the input layout of a quote is shown. During record input, the system prompts the user at every opportunity. For example, when the cursor is placed within the customer field, a list of previous customers is displayed. Assuming the customer is a repeat customer, the user can select the customer from the list. Various fields are then completed from information previously stored for that customer.

To add an item to a quote, the user clicks the "+" icon, followed by the "Go Prod" button. The Products file is then displayed, as shown in Figure 62. The Products file may contain hundred of thousands or even millions of product records of products from different vendors. When the user selects a product, the all of the relevant information for that product is transferred to the quote. To facilitate selection, the product file may be searched in various ways, e.g. by vendor, product category, etc. By searching the products file by manufacturer part number, the vendor offering the best price for a particular product may be identified.

When all items have been added, the user is asked to specify partial shipment status. The partial shipment status specifies what items, if any, can be shipped separately and what items, if any, are required to be shipped together. The user is further prompted to enter installation information and to ensure that all WO 99/33016 51 PCT/US98/27496

required cables, brackets, etc. have been ordered. In the case of computer equipment, for example, installation may involve installing a card or installing memory within a computer, loading software, etc. If installation is specified, installation charges are automatically added to the quote.

During the foregoing process, the user may enter notes within a screen 6101. This screen is displayed whenever the quote or MWS is displayed. If a quote is created on the Web, a separate notes screen is provided for customer notes. A corresponding notes screen for internal use only is provided for all quotes.

When the quote is satisfactory, the user may then save the quote by pressing the post to purchasing button.

To ensure that a quote is correct, one or more additional review stages may be required before the quote is converted to an MWS for purchasing. For example, the quote may be reviewed by "inside sales" to make sure that any compatibility requirements have been met and that, from a technical viewpoint, there are no errors in the quote. In a further review stage, the quote may be compared to a paper purchase order, if one exists, to make sure there are no discrepancies. When the quote has passed whatever level of review is required, it is then marked reviewed and converted to an MWS. The format of an MWS is shown in Figure 63.

Note that, during the foregoing process, different people may have different limited privileges. Also, throughout the foregoing process and throughout the system generally, at each information entry point, the user's input is checked for accuracy in order to prevent common mistakes from occurring.

# PRIS (Purchasing, Receiving, Installation, Shipping)

Purchasing, receiving, installation and shipping functions are closely interrelated. For this reason, preferably the output display/user interface presented during these different processes preserve a common look and feel.

Purchasing may be based on a real inventory model, a virtual inventory model, or a combination of the two. In the case of the virtual inventory model,

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automating purchasing functions in such as manner as to 1) scrupulously avoid physical inventory; and 2) achieve business scalability, becomes a challenge. The following description assumes that purchasing is based at least in part on a virtual inventory model.

A simplistic approach to purchasing is to treat each customer purchase order separately. Under this approach, however, the amount of work involved in purchasing is proportional to the number of customer purchase orders; business cannot achieve 100, 200 or 1000% growth in a short period of time without causing severe growing pains.

Instead, the purchasing module of the present system is designed for business scalability and maximum automation, allowing for dramatic growth without a dramatic increase in human effort and with little or no pain. Scalability is achieved by "commingling" customer orders in such as way that what appears to an outside vendor as a single large order is tracked within the system as a multitude of smaller orders.

Referring to Figure 64, purchase order sales actions result in MWS records, each MWS record including all of the relevant information required for purchasing. In an exemplary embodiment, this information includes internal MWS number, customer P.O. number, sales cost, sales price, vendor, part number, manufacturer, manufacturer part number, installation grouping (within a particular MWS), shipping instructions, and stock/inventory status. Each MWS is assigned a unique MWS number which is used throughout the life of a transaction to differentiate distinct purchase orders. Any unique identifier may server the same purpose, including, for example, a material code number, a purchase requisition number, etc.

The design of a purchasing output display/user interface greatly simplifies the purchasing process. For each item to be purchased, a record is displayed including each of the foregoing pieces of information. Preferably, all of the head-

ing allow for sorting on that heading. Furthermore, all items are selectable and may be expanded (by doubling clicking) into item details.

The user interface allows a variety of actions to be performed, including grouping items within the display, removing items from the display, cancelling or changing various aspects of an order, holding an item or splitting an item (e.g., in order to hold less than all of the items details belonging to an item), etc. In an exemplary embodiment, items may be grouped by stock status (B/O, short stock), by shipping instructions (partial shipment OK, no partial shipment), by vendor, by manufacturer, by MWSs including addendums, etc. Groups of items may be removed from the display, including any of the aforementioned grouping and install groups. An item sold (one or multiple physical items) may be removed or an item detail (a single physical item) may be removed. Cancellations and changes may be made to an item sold, an MWS, shipping method, and freight charges.

In accordance with the virtual inventory concept, items within a group (an installation group or a ship group, for example) are acted upon as a group. For example, if one of the items is removed from the purchasing screen (purchase of the item is delayed), all items in the group are removed from the display. Undesired inventory is therefore avoided. Otherwise, an item might be ordered and received only to find that it must be installed with or ship with an item that is back ordered. Valuable cash is then tied up in inventory waiting for the back-ordered item. The present system avoids such unwanted inventory.

In a typical scenario, a purchaser's work might proceed in the following manner.

- 1. Get all unfinished and new work (all items having no order date).
- 2. Select a subset of items to work and remove all other items from the output display.
- 3. Get all back ordered items and purchase them first. Eliminate related "no partial" items from the output display until the corresponding back-

ordered item has been received.

- 4. Group items from different orders and possibly change vendor on some items to obtain quantity discounts, if possible.
- 5. Place order and repeat.

In a preferred embodiment, at least the latter two steps are performed via the Web or with information obtained via the Web. Orders may either be placed directly or posted for bid by interested vendors. Furthermore, in accordance with supply-chain management functions described more fully hereafter, a single purchase may be "broadcast" via the Web to all relevant vendors and manfacturers within a supply chain for that product.

Various user interface buttons relate to the actual placing of a purchase order. In a telephonic transaction, purchase cost (Pcost) on an item might be negotiated downward below the sales cost (Scost). By selecting an item and clicking on the button, the purchase cost may be input in the course of placing the order. A sales confirmation number may also be input by clicking on the corresponding button. An automatically generated PO number may be assigned by clicking on button. By clicking on the button, the output display is refreshed to remove from the display items that have been ordered. Simultaneously, the system marks the ordered items as ready to receiving, thus preparing the items for receiving.

More preferably, purchase orders, instead of being placed manually, are placed electronically by linking to the seller's network of vendors. Automated purchasing may occur continuously or at regular intervals using "pull" technology, "push" technology, some combination of the two, or some other information retrieval technology or combination of technologies.

Business rules guide the user to follow a pre-established routine for easily accomplishing complex business tasks including purchasing. Note, however, that dynamic workflow allows an experienced user with the requisite access authority to override business rules in order to handle new business requirements. This

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authority is in turn counter-balanced by various consistency checks throughout the system that ensure accountability.

Business rules implemented by the purchasing process include the following:

- 1. Items cannot be ordered before a quote is converted to a MWS.
- 2. Duplicate orders are not allowed by item or MWS.
- 3. Items can only be ordered from approved vendors.
- 4. Purchasing can only be done by authorized personnel.
- 5. Purchasing notes can only be viewed by authorized personnel.
- 6. Purchase costs can only be viewed by authorized personnel.

Referring to Figure 65, purchasing information, derived from MWSs, is used in the receiving process. (An item must have been purchased to be received.)

Returns (RMA) information, also derived from MWSs, is also used in the receiving process. (Return items must be received in order to give credit.)

When the receiving process is begun, only items sold having an order date but no receive date are displayed. Double clicking on a item causes specific receiving instructions for that item to be displayed, as described more fully hereinafter. The display format is very similar to that of the purchasing process. The possible actions that may be initiated, however, are particular to receiving. Those actions include 1) input actions; and 2) display actions.

Information input during receiving includes packing slip number, serial number (each physical item, where applicable), carrier, quantity, payment terms, number of boxes, condition upon receipt, etc. Batch input for all packing slips and items. The system automatically matches input with items that exist in the system such that the same item cannot be received twice, the wrong item cannot be received, a cancelled order cannot be received, etc.

Expected to receive will exclude refusal items. For example, a customer may change his or her mind after an order has been placed but before the item has

been received. In this instance, a refuse instruction may be placed on the item to prevent it from being received.

As in the case of purchasing, in the case of receiving also, great benefit is obtained from allowing vendor access via the Web to see what products order from that vendor have been received. The vendor then obtains the information it requires to be truly responsive to its customer's needs.

Referring to Figure 66, installation is based on the same type of output display. However, only installation groups are shown. Items requiring no installation are not displayed. Furthermore, the user has the option to show all items requiring installation or to show only items requiring installation that have been received. The possible actions that may be initiated include 1) actions used to track installation in various different stages of completion; and 2) input actions, namely input of serial number and asset tag number. (Asset tag numbers may be affixed by prearrangement with the customer and retained in the system indefinitely to assist the customer in accounting for equipment.)

An installation, once begun, may have several possible outcomes. In the typical case, the installation will be completed successfully and the installation group may be released for shipment. In other instances, installation may be only partially completed—e.g., manufacturer technical support may be required, additional parts may be required to complete installation, or additional installation may be required for some other reason. In some instances, the appropriate action may be disinstallation, for RMA purposes or for some other reason. All of these different stages of completion are tracked within the system.

Referring to Figure 67, the shipping process, like receiving, uses both purchase information and RMA information. The output display displays only items sold having a received date but no ship date. Double clicking on a item causes specific shipping instructions for that item to be displayed, as described more fully hereinafter. Input actions that may be initiated include inputting a shipping track-

ing number, serial number (if not previously entered), customer specific number or asset tag number, claim value, carrier (or will call, which causes a local sales tax rate to be applied), payment terms, boxes, etc. Provision is also made to display only those items expected to ship, excluding refusal items, hold items and items with COD/cash terms.

Referring to Figure 68, throughout the foregoing processes, and in particular receiving, installation and shipping, notes conveying instructions regarding specific items may be displayed by double-clicking an item to cause a item detail display to appear. Included within the item detail display are several notes boxes, including boxes for unique installation notes, standard default notes from the customer file, unique shipping notes, standard default shipping notes from the vendor file (for RMA), RMA installation notes, receiving notes, etc.

The PRIS output display also includes an "Expedite" view, shown in Figure 69. The expedite function is to minimize delay in receipt of ordered products. Expedite actions include entering the Estimated Time of Arrival (ETA) of a product based on contact with the vendor and/or shipper and marking items in accordance with various expedite categories, as well as entering notes if necessary concerning the problem and expected solution.

In accordance with one embodiment of the invention, expedite information may be brought up from the MWS screen, as shown in Figure 70. In Figure 70, a radio button has been clicked to cause a Not Received Report to be displayed. This report shows percentage of order completion in terms of ordering, receiving and shipping, as well as the age of the order in days. Various filtering options are provided. Expedite status for each item may be entered by clicking on one of a large number of status buttons, e.g., "Urgent," "Wrong Product," etc. A Not Shipped report screen display is shown in Figure 71.

Expedite status may also be set using a more abbreviated expedite pop-up, shown in Figure 72.

Figure 145 through Figure 149 show different output displays tailored for purchasing, receiving, installation and shipping in accordance with another embodiment of the invention. These output displays are different views of the same underlying data stored in the Item Detail records—the basis "currency" of the system.

Figure 145 shows a purchasing output display. Various columns are common to all of the PRIS output displays, e.g., MWS number and date, internal PO number, customer name and PO number, item description, etc. Columns of particular interest for purposes of purchasing are Scost/Pcost (expected cost at time of sale and actual purchasing cost), Vendor/Conf#, Mfr./Vendor part number (PN), Lprice/Lcost (the last sales price and purchasing cost for this item), Rebate, Special, and Pcomments, or purchasing comments.

Figure 146 shows an Expedite output display. Of particular interest for purposes of expediting are Order/ETA (expected time of arrival at the time of order), Epd ETA/Status (latest ETA, reason for delay, etc.) and Epd Condition.

Figure 147 shows a Receiving output display. Of particular interest for purposes of receiving is Receive Condition.

Figure 148 shows an Installation output display. Of particular interest for purposes of installation are Install/Date and Install Group. Items within a same install group are to be installed together to form a single functional product or assembly.

Figure 149 shows a Shipping output display. Of particular interest for purposes of shipping are Order/Recd and Ship Group. Items within a same ship group are to be shipped together.

As with both purchasing and receiving, preferably vendors are given access via the Web to expedite information relating to that vendor.

The foregoing principles explained in relation to PRIS may be adapted to other businesses in which, instead of installation, any type of transformation may

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be performed. In channel assembly, for example, parts are assembled into a product mere days or even hours before the product is shipped to a customer. The transformation may therefore be assembly instead of installation. In other businesses, the transformation may be quite different, e.g., testing, burning-in, mixing, aging, curing, machining, etc. The transformation may be a single-step transformation or a multiple-step transformation in which intermediate products are produced. Whatever the nature of the transformation, information concerning what materials have been transformed, various stages of transformation, etc., are tracked in the database. The purchasing, shipping and receiving functions described previously therefore become part of a comprehensive materials management system.

#### **RMAs**

Normally, the order will be successfully shipped to and received by the customer, who would then begin to use the products. In some instances, however, the product may not work as intended, the product may be lost or damaged in shipping, duplicate products may be shipped, or the customer may change his or her mind, necessitating that a product be returned. Returns are provided for through a Return Merchandise Authorization (RMA) mechanism. The same mechanism may be used for other account adjustments other than actual returns, for example freight adjustments, etc. In fact, in some sense, the RMA mechanism may be regarded as a garbage can of sorts—any action that is later found to be incorrect, for any reason, can be reversed through the RMA mechanism. Furthermore, the existence of an RMA has immediate effect throughout the system, on purchasing, receiving, installation, shipping, accounts payable, and accounts receivable. For example, if an RMA is received and the corresponding vendor invoice has not yet been paid, the vendor invoice will not be paid until the return product is received and shipped back to the vendor and a credit received from the vendor. The immediacy of the effect of creating an RMA is achieved through the use of a central underlying table—item detail—that functions as the building block upon which other tables

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depend. In essence, most data is viewed within the system simply as a "window" into the item detail table.

An RMA may also be used for warranty replacement parts. This feature, coupled with Web access, allows customer's to track replacement parts themselves without contacting a technician or service representative. A customer may request an RMA in any of the ways previously described for obtaining a quote or placing an order. When an RMA request is received, an RMA record is created. An RMA screen display is shown in Figure 73.

Referring again to Figure 63, a MWS display includes an RMA button. When this button is clicked, the user is prompted to select an item from the displayed MWS for return. An Add RMA Record screen display such as that of Figure 74 is then used to specify return type, reason, etc. A typical RMA has two "sides," the customer side and the vendor side. When the item to be returned is selected, preferably both the customer side and the vendor side are filled out by the system. Any changes may be made from a screen display such as that of Figure 75. By clicking a button, the screen display of Figure 75 allows for display of the customer side only, the vendor side only, or both sides of the transaction, as well as claims information.

A return may be made for any of a number of different reasons. Different return types are therefore defined. Depending on the return type, some RMA fields will not be applicable. Preferably, the system is provided with sufficient intelligence to automatically fill in these fields as "N/A."

As shown in Figure 76, a lookup table may be used complete various fields of an RMA record based on the selected return type. If a return is for credit, for example, then return type 1 is the corresponding return type. Depending on whether payment was by check, credit card or credit memo, different fields may be applicable. In the present example, however, the mode of payment does not affect the manner in which the RMA is completed. As noted previously, an RMA has

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both a customer side and a vendor side. In Figure 76 therefore, each table cell has an upper half corresponding to the vendor side (V) and a lower half corresponding to the customer side (C). To take a few example fields, in the case of a return for credit, no replacement product is called for, hence the Repl MWS column is marked N, for no. Since no replacement product is expected, then on the vendor side, the Rec'd column is N/A, and on the customer side, the Ship column is N/A. Similar logic dictates the way in which the remainder of the table is completed.

Similar logic tables may be used to automatically approve RMAs and provide an RMA number instantaneously for most RMA requests. Again, approval has a customer side and a vendor or manufacturer side, at least in the case of a virtual inventory model. (RMAs eliminate, or at least minimize, the hazard of accumulating obsolete inventory as a result of returns.) In an exemplary embodiment, a series of limit checks are performed on an RMA request. Referring to Figure 77, a limit file is shown, having a customer portion, a vendor portion and a manufacturer portion. Assume once again that the return type is return for credit, and assume further that the payment mode was check. The first column has a Y value, indicating that automatic approval of RMAs of this return type are allowed. The next three columns relate to the manufacturer and contain the values Y, Y and N, respectively, indicating that for the RMA to be approved the manufacturer must allow returns, that the manufacturer must further allow open box returns, and that the time to RMA cannot exceed the manufacturer's allowed maximum time duration. For a particular manufacturer, the manufacturer's specific return policies are stored in a table such as that shown in Figure 78.

Referring again to Figure 77, the next two columns relate to vendor and contain the values N and N/A, respectively, indicating that the time to RMA cannot exceed the vendor's allowed maximum time duration and that the vendor's restocking fee policies are not applicable for this type of return. For a particular vendor, the vendor's specific return policies are stored in a table such as that

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shown in Figure 79.

Referring again to Figure 77, the next four columns relate to customer and contain the values N, N, N and N/A, respectively, indicating that the time to RMA cannot exceed the maximum time duration allowed for this customer, that there must be no restocking fee, that the sales price cannot exceed the maximum allowed for this customer, and that customer service fee policies are not applicable for this type of return. For a particular customer, specific return policies for that customer are stored in a table such as that shown in Figure 80.

If an RMA request meet all of the applicable automatic approval criteria, then it may be automatically approved, instantly, and an RMA number communicated to the customer as shown, for example, in Figure 81.

A more detailed listing of RMA types, subtypes and conditions is provided in Figure 159.

Business rules implemented by the RMA module include the following:

- 1. RMAs can only be created for items shipped to customer.
- 2. One item per RMA (quantities are OK).
- 3. Replacement Quotes are created by the user specifying the appropriate replacement product.
- Generation of printed/faxed RMAs with Return packing slips for customer use.
- Receiving can only receive items from customers with valid RMA issued.
- 6. Wrong or defective products automatically create RMAs.
- Replacement MWSs can only be shipped after being released by purchasing.
- 8. Vendor RMAs must have vendor RMA numbers before shipping.
- 9. Complete control of RMA module by executive group.

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One characteristic feature of the present system perhaps most evident in relation to RMAs is the display of information in a very complete way and in such a manner as to allow ready interaction. In conventional database applications, information is presented in simple row format within an output display. Multiple levels of "drill-down" may be required to display a particular detail. Furthermore, entry or manipulation of information can typically only be performed from a separate input screen.

In the case of the present system, by contrast, as exemplified by the RMA display of Figure 73, records are presented in a very information-rich format. Entry or manipulation of information is enabled within the same screen display. In the case of RMAs, for example, a user with the proper authority is able to approve or cancel an RMA, change an RMA to a different type, release a replacement shipment, etc.

A further important feature also greatly facilitates convenient navigation and ease of use. In most systems, to display related records, a search editor is used to enter a search. In the present system, by contrast, a "related-switch" menu bar is provided within most displays. Using this related switch feature, a user may select one or more records within the output display and select a related file from a popup of related files. The system then searches in the related file for records related to the selected records and displays the related records in the output display format of the related file. In the case of RMAs, for example, the related switch capability may be used to switch to related customer invoices, vendor invoices, credit memos, etc. One file may be related to another file but only indirectly, through a third file. In this instance, an intermediate search is required, the results of which are not displayed. Of course, the number of intermediate files may be more than one.

Preferably, vendors are given access via the Web to RMA information pertaining to them. A vendor may then immediately provide an RMA number without WO 99/33016 64 PCT/US98/27496

requiring any human intervention.

With vendor access to purchasing information, receiving information, expedite information and RMA information pertaining to that vendor, a truly integrated supply chain results. Such an arrangment makes global commerce just as convenient as local commerce. For example, a seller may have ten or hundreds of vendors worldwide, many in locations where the time difference would ordinarily make doing business difficult and tedious. Such difficulty is removed in the case of the present system, because all of the intelligence needed to do business resides in the system and is readily accessible at each party's convenience wherever in the world that party may be.

As previously described in relation to PRIS, the present single-database system contains information about installation and product configuration. This information may be used to advantage to avoid a common problem encountered in relation to RMAs. When a product is returned that has other add-on products installed, the user may forget to remove these add-on products before shipping the product to be returned. For example, a printer may have installed a memory upgrade and a network card. If the printer is returned to the vendor with the memory upgrade and the network card installed, there is some likelihood of the memory upgrade and network card being removed during service and not re-installed. These add-on products may then become lost.

To avoid this problem, when an RMA is requested for a product that has had one or more add-on products installed, a dialog is displayed to the user reminding the user to remove the add-in products prior to shipping back the product. The same reminder may instead, or in addition, be sent by e-mail, fax, etc.

The PRIS capabilities described previously may also be used to advantage to track RMA status and display status information via the Web. The stages of an RMA typically include some or all of the following: 1) shipped from customer to reseller; 2) received by reseller; 3) shipped by reseller to vendor; 4) received by

vendor; 5) shipped by vendor; 6) received by reseller from vendor; and 7) shipped from reseller back to customer. With the possible exception of number 5, status information with respect to each of the foregoing stages is available within the database or, in the case of number 4, through conventional electronic tracking services offered by carriers such as UPS, Federal Express, etc.

# Design Philosophy: Self-Correcting Knowledge-Based System

The information-rich action-oriented displays previously mentioned are a manifestation of a design philosophy in which a system knowledge base is continuously expanded with user assistance and reflected in the manner in which users interact with the system. Other manifestations of this design philosophy are found in the options described previously (Table 1 and Figure 124 through Figure 128) and the experiential constraints alluded to previously and described in greater detail hereinafter. Referring to Figure 129, a knowledge base is initially created based on system analysis and design considerations, considering the range of possible outcomes at each stage of the business process, and considering further the goal of total automation, phones free and paper and pencil free. These system analysis and design consideration will necessarily be incomplete—hence the need for dynamic workflow. No pretense is made that a single predetermined workflow definition will prove adequate in practice.

The knowledge base affects user interaction with the system through two different kinds of displays, a data input display and a process display. The data input display is used to actually enter data into the system. During the course of data entry at entry points E1-E9 (Figure 59), rigorous entry qualification occurs to eliminate errors. In the case of PRIS, for example, during receiving, only ordered items are allowed to be received. To cite a further example, during vendor invoice entry, described hereinafter in relation to Figure 121 through Figure 123, the system detects an attempt to enter a duplicate invoice number and prevents the duplicate from being entered. The process display is used to act on the data within the

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system to move an item to the next stage, and in the course of such action has the effect of changing the status of records acted upon. In the case of RMAs, for example, the user may easily, with the click of a button, approve or cancel an RMA, issue a customer credit memo, change the N/A settings of the RMA, etc. In the case of expedite, the user may easily, with the click of a button, record the reason that a product has not been received. To cite further examples, in the case of vendor invoices and customer invoices, described hereinafter, the user may easily, with a click of a botton, mark a vendor invoice for approval or cause an aging report window to be displayed for customer invoices.

The knowledge base and the application of it to data input and user actions is what makes an automated, end-to-end, sequential business process possible. Depending on the skill level of the user, the user is given some level of authority ranging from minimum authority to maximum authority. For users with minimum authority, the system ensures that work gets done in a prescribed, correct manner. For users with greater authority, dynamic workflow provides myriad additional possibilities while maintaining accountability.

During use of the system, unanticipated circumstances are bound to arise in which the user cannot accomplish his or her task (or accomplish it as well) in a phones free, paper and pencil free manner using the current features of the system. In this event, the knowledge base of the system is then added to to solves the user's problem. In some instances, the user may be able to add to the knowledge base directly. For example, the user may wish to add a further return type by adding an entry to the table of Figure 75. Similarly, in the case of factual performance evaluation, described hereinafter, the user may choose different performance metrics or combinations of metrics to be tracked and displayed. In other instances, adding to the knowledge base may require administrative intervention. In the case of the options of Table 1 and Figure 124 through Figure 128, adding further options may require the efforts of a programmer.

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Having described for an order the course of events in the product domain, the course of events in the payments domain will now be described, first in relation to sales tax and sales commissions, then in relation to customer payments and finally in relation to vendor payments.

## Sales Tax and Sales Commissions

Sales tax and sales commissions are automatically computed and stored in the system based on applicable tax rates and commission rates.

In the case of sales tax, a sales tax table contains state tax rates and local tax rates. For a particular sale, the applicable tax rate is determined based on the ship-to address. Typically, preliminary tax payments are made each month and a final tax payment is made each quarter. Sales tax records are automatically added to a sales tax register (first prepayment, second prepayment, or final quarterly payment) for the appropriate period. As shown in Figure 82, the sales tax module automatically calculates the figures to be entered on each line of a sales tax return, or may be programmed to print out the actual return.

In the case of commissions, commission rates are stored within a Sales Rep file and a Sales Support file. Because each order is worked on by both outside sales and inside sales, each order will typically have two commissions. Commission records are created at the time a customer invoice is issued. Commissions are then approved and scheduled to a commission register for payment in a similar manner as accounts payable, described hereinafter. Multiple levels of commissions are provided for. A simple example of multiple commissions is where an outside salesperson responsible for customer interface is supported by an inside salesperson that reviews orders for correctness and troubleshoots the order, if necessary, during the fulfillment process. In more complex organization structures (e.g., multi-level marketing), the number of commissions may be greater than two.

### Accounts Receivable

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When an order is shipped, a customer invoice is automatically issued, i.e., entered into the computer system. If paper invoices are required, then at regular intervals (each day, for example) an accounts payable clerk prints out, checks and mails customer invoices issued during the preceding interval. (Alternatively, the printing and mailing of customer invoices may also be automated.) In an exemplary embodiment, invoices are issued using the "Issue invoices" option within the customer invoice file. A customer invoice screen display is shown in Figure 83. With the passage of time from the invoice date, invoices pass from one category to another, e.g., 30 days, 60 days, 90 days, etc. At any time, the accounts payable clerk may view invoices within different categories. Also, as is the case with other output screen displays, the user is able to manipulate information and interact with the system, e.g., to analyze an account, add a comment or note, etc., all without paper and pencil.

Referring more particularly to Figure 84, from a MWS output screen display, the user can select a group of invoices and click on a collections button to cause a collections summary to appear. By further clicking on a By Customer button, the selected invoices are broken down by customer as shown in Figure 85.

When a customer payment is received, a payables clerk clicks an add record button to add a customer payment record. The clerk is then presented with a pick list of customers. The clerk selects the customer from which the payment has been received. The customer is then prompted in turn to enter the mode of payment (check, cash, etc.) and the payment date. A customer payment record such as that shown in Figure 86 is created. A payment may correspond to multiple invoices. The clerk enters from the check stub reference numbers and invoice numbers, as well as the respective amounts, for each invoice (or credit) to which the check purportedly applies. Referring to Figure 86, for example, the check #429069, as indicated on the check stub, pertains to five different items, or reference numbers, the first three of which are invoices and the last two of which (DM32890/4829 and

DM32889/4695) are credits.

After the reference and invoice numbers have been entered from the check stub, the system attempts to match the entries to the corresponding invoices within the system. The clerk is prompted to enter the type of each item (e.g., invoice or credit) and the amount indicated on the check stub. The system then checks to see if the amounts indicated coincide with the expected amounts stored within the system and indicates each item as being reconciled or not reconciled. The clerk then saves the record, which may then be approved and posted by supervisory personnel.

Discrepancies may occur between payment amounts and invoice amounts, i.e., both overpayment and underpayment may occur. An OverUnderPay file is used to track and resolve such discrepancies. An OverUnderPay screen display is shown in Figure 87. A corresponding record detail screen display is shown in Figure 88. OverUnderPay is an example of dynamic workflow and allows for the application of user discretion in handling overpay and underpay situations given the requisite authority.

Business rules implemented by the A/R module include the following:

- 1. Invoices will be automatically created on shipment of products to customers.
- 2. Items can only be invoiced once.
- 3. Invoices must be issued by accounting before they are valid.
- 4. EDI invoices are provided for. EDI invoices will automatically be sent via EDI.
- 5. EDI invoices PID numbers must match PO PID numbers in the EDI file.
- 6. Customer invoice numbers indicated on the check stub must match with existing customer invoice numbers in the system. The amounts must correspond, else an overpay/underpay records is created as described above.

### **Customer Collections**

An important object of the present system is to allow routine operation of an entire business without paper and pencil. In the course of performing a business function, a person will typically gather information from various sources and jot down the information for reference while performing the business function. This reliance on paper and pencil is perhaps most apparent in the area of customer collections. Every invoice to be collected presents a different situation, as does every customer. Previous contacts with the customer may need to be followed up on, or, conversely, the customer may become annoyed at too frequent contact.

The present system overcomes these problems by providing a highly-usable customer collections "environment." Referring more particularly to Figure 141, the customer collections environment is shown within the bottom portion of the screen. Within the top portion of the screen is displayed a Customer Invoice output display showing selected invoices of a particular customer.

The customer collections environment within the bottom portion of the screen is composed of various different panels. A "Get" panel presents aged A/R information and allows the user to retrieve invoices within the different age categories. Pressing "Get" for a particular category causes the corresponding invoices to be listed within the Invoice panel to the left, from which the user can select a particular invoice for display.

The "Get" panels also provides a get Problem/Tickler option. Each invoice may be marked with one or more problems and/or one or more ticklers. When an invoice is selected, problem codes representing problems associated with that invoice are displayed within a Problems list box. Similarly, ticklers associated with that invoice are displayed within a Tickler Log. The user can add and remove problems and ticklers to and from an invoice as appropriate.

A Contact Log is used to record contacts and attempted contacts with the customer. For example, if the customer says "Please don't call again for six

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weeks," this information can be recorded in the Contact Log. Below the Tickler Log is located a financial summary of the current selected invoice. Below the Contact Log is located payment details of the current invoice. Below the financial summary panel are located text box for invoice-specific notes and invoice-specific keywords. The ability to assign keywords to record and retrieve records using those keywords is provided for the user's convenience. Below the payment details panel is located customer contact information, and to the right of the customer contact information is located a text box for customer-specific notes.

In Figure 141, the user has selected a Get Problems option. As shown in Figure 143, a text box is then displayed listing various possible problems. To mark an invoice as having a particular problem, the user selects that problem and clicks OK. If instead the user selects Get Tickler, a text box as shown in Figure 144 is displayed listing various ticklers. To mark an invoice with a particular tickler, the user selects that tickler and clicks OK.

Referring to Figure 142, the user may also search for invoices within particular categories, regardless of whether a particular invoice has been marked as having a problem or not. The categories (e.g., "With addendums," "Replacements without credit memo," etc.) will typically have implications that affect collection. Dealing with categories of invoices in this manner increases efficiency.

Because all of the relevant information needed to perform collection, including client contact information, is captured in the database and displayed in a readily-accessible and usable fashion, the collections function can be performed by a relatively unskilled worker following a minimum amount of training. Furthermore, the collections function may be performed by one person one day and another person the next day without confusion or loss of effectiveness, minimizing the effect of sickness and/or employee turnover.

#### Accounts Pavable

The accounts payable module is designed to ensure that invoices are timely

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paid but to prevent double payment, overpayment, etc., and to systematically resolve problems with invoices so that they may be paid. The payment policy may be more or less aggressive. On the aggressive side, for example, the system may provide that a vendor invoice is paid only after a corresponding customer payment has been received, thereby assuring a stable cash flow.

A vendor invoice screen display is shown in Figure 89. When vendor invoices are received, they are entered within a grid such as that of Figure 90. The invoice number and PO number are entered manually from the invoice. The payee and vendor are preferably selected from pick lists. The invoice date, total billed, tax and freight are entered manually from the invoice. For each entry within the Add Invoices screen, a vendor invoice such as that of Figure 91 is created. Based on the PO number, the system displays items sold from the MWS (with or without addendum, or possibly even multiple addendums) to which the invoice pertains.

The vendor payment process begins by an accounts payable clerk invoking a Daily Vendor Verification option. Referring to Figure 92, this option identifies all of the open vendor invoices and runs them through a "sieve" to determine which invoices are "clean," i.e., fully reconciled, and which invoices are not clean, i.e., have discrepancies. Within each the categories clean and not clean, there are numerous sub-categories arranged in order from most important to least important. A given clean invoice may in fact fall within several sub-categories, but is categorized at any given time into the highest sub-category to which it belongs. Similarly, a given invoice that is not clean is categorized at any given time into the highest sub-category to which it belongs. By double clicking on a particular category, invoices belonging to that category are displayed. Typically, the payables clerk will pre-approve clean invoices for approval by supervisory personnel having authority to approve payment. Invoices that have been approved are then scheduled by the payables clerk to a payment register, an example of which is shown in Figure 93, for payment in accordance with their respective due dates.

For invoices that are not clean, the payables clerk displays invoices from the highest sub-category, investigates each invoice and attempts to fix the particular discrepancy involved with that sub-category. The same approach is followed with the invoices of each sub-category in turn. The verification is then re-run. Some invoices may have become clean, whereas other invoices may have passed to a next-lower sub-category but may still not be clean.

Referring again to Figure 90, prior to entering invoices, the user is prompted as to which type of invoices to be entered, including as one possibility freight bills. When a freight bill is entered, the user enters the invoice number, PO number, and payee (the latter from a pick list), and instead of a vendor list, picks a carrier from a carrier list. The user is then prompted to enter a date range specifying a period to which the freight bill pertains (Figure 94). Shipping records are then searched, and freight charges for shipments with the specified carrier during the specified period are totalled. Invoice entry is then completed in the usual manner. If the invoice amount entered from the invoice equals the expected total charges, then the resulting invoice record is marked reconciled. If not, then the invoice record is marked not reconciled.

Qualification of user inputs, previously described, occurs at each entry point E1-E9 of Figure 59 but is most readily illustrated with respect to invoice entry. Figure 121, Figure 122 and Figure 123, respectively, illustrate various warning dialogs used to prevent entry of erroneous data. If entry of a duplicate invoice number is attempted, for example, a dialog such as that of Figure 121 is displayed, and the system refuses to permit the duplicate entry. If an attempt is made to enter the same invoice twice during an entry session, then a dialog such as that of Figure 122 is displayed. If the system detects that the same invoice number has been used previously but with respect to an apparently different vendor, then the user is notified (Figure 123) and may choose whether or not to proceed.

Note that each item can have only one active customer invoice and one

active vendor invoice. This feature prevents may common AR/AP errors. For example, if duplicate vendor invoices are received in relation to a single item, only one of those invoices will be matched with the item record representing the physical item. The other vendor invoice finds no place in the system.

Business rules implemented by the AP module include the following:

- 1. Items can only be billed once by a vendor.
- 2. Vendor invoices must reconcile with purchasing costs and terms (freight, tax, payment dates, etc.).
- 3. No duplicate vendor invoices are allowed. A vendor invoice is identified by a combination of vendor invoice number and MWS number.

  Hence, the same vendor invoice number may be billed against different MWS numbers (since some vendor's numbering systems may generate duplicate numbers), but not against the same MWS number.

Vendor verification is merely exemplary of a more general methodology for accomplishing a business task. This more general methodology allows a user to perform a business task without the need to refer to different sources of information. In an exemplary embodiment, it involves the following steps:

- 1. A classification scheme is specified, consistent with common business practice and terminology.
- An algorithm is applied whereby items are classified, marked and displayed according to category.
- 3. Within a single display screen, the categorized items are displayed along with one or more user interface controls for taking action with respect to an item.

The items may be items within any of the foregoing domains—produc\*\* (e.g., computer equipment), payments (e.g., vendor invoices, customer invoices, payment registers), performance (e.g., accounts), or personnel (e.g., activity sum-

maries). Furthermore, the items may be single items or groups of items (e.g., master worksheets).

Other exemplary uses of the foregoing methodology will be briefly described. Still others will be apparent to those of ordinary skill in the art.

The items may be customer invoices and the business task may be collections. The invoices may be classified into various classifications according to the reason for non-payment, e.g., never received, return requested, price discrepancy, etc. The items may be order items and the business task may be an expedite task. The items may be classified into various classifications, e.g., vendor lost order, (re)seller lost item, item damaged, wrong item, empty box, etc. The items may be master worksheets and the task may be purchasing. The master worksheets may be classified into various classifications, e.g., replacement MWS, addendum, internal use, etc. The items may be payment registers and the business task may be reporting. The payment registers may be classified into various classifications according to payee, e.g., vendor, federal government, state government, local government, service providers, etc.

# Nightly or Periodic System Update

In addition to the foregoing business rules, or experiential constraints, implemented within each of the individual modules, recall that cross-checks between various domains are performed at intervals. Such cross-checks may be performed nightly or at other periods of low system activity. When performed nightly, the cross-check routine may be referred to as a nightly update. As a result of the nightly update, a nightly update report is generated, all or selected portions of which are automatically emailed to responsible individuals for receipt the following morning. An example of a nightly update report is provided as Appendix A.

## General Ledger and Real-time Financials

Having described for an order the course of events in the payments domain,

the course of events in the financial performance domain will now be described.

The most "tasking task" for most small- and medium-sized business is accounting. Accounting packages typically come in one of two flavors, packages for non-accountants that mask the complexity of generally-accepted accounting principles (GAAP) but do not provide information in "accountant-ready" form, and packages for accountants that are not readily understood or used by non-accountants. The need for real accounting documents coupled with the difficulty of producing them has necessitated considerable reliance on accountants, either outside accountants or full-time paid staff. If an outside accountant is used, the accountant brings the books up-to-date only at intervals. Even in the case of full-time paid staff accountants, the books are typically brought up to date only monthly, or at most weekly, because of the arduousness of the process. Typically, invoices are reviewed and confirmed, then manually posted, then a trial balance is run, adjustments are made, etc.

Accounting information is presented in the form of financial statements. Information about each item appearing on the financial statements is gathered in an account. An account exist for each asset, liability, revenue, expense, and category of owner's equity of a company. More particularly, the classic accounting process involves the following steps:

- Analyzing business and financial transaction to determine if they affect accounts:
- 2. Journalizing transactions affecting the accounts;
- 3. Posting journal entries to accounts;
- Determining the balance in each account using incoming bank statements;
- 5. Preparing a total of all the account balances, called a trial balance;
- 6. Determining whether any adjusting entries are necessary and journalizing and posting such adjusting entries;

- 7. Preparing financial statements;
- 8. Closing income statement accounts and establishing ending balances for use in the next accounting cycle.

In classic accounting practice, the effects of a transaction are not recorded directly into the accounts. Rather, they are recorded in a journal entry in a general journal, or general ledger (GL). The process of transferring the information from the journal entry to the accounts is called posting. At the end of the fiscal period, before making any adjusting entries, an accountant prepares a schedule listing all the individual account titles and their respective debit or credit balances. Following the trial balance, various adjusting entries may be required to assure that revenues are reported in the period they were realized and that all expenses are matched with the revenues they produced. An adjusted trial balance is then produced. Financial statements are generally prepared on worksheets from the adjusted trial balance. Whereas balance sheet accounts are permanent (or real) accounts, income statement accounts are temporary (or nominal) accounts. Because the data collected in an income statement account is only for the current fiscal period, the balance is not carried forward but is eliminated at the end of each fiscal period. The process of eliminating the balance in each of the revenue and expense accounts (by transferring the balance to a different permanent account) is called closing the accounts.

As a result of the cumbersomeness of the foregoing process, management processes accommodate the limited availability of accounting-derived management information. In reality, however, the need for management information is constant and ongoing, and cannot be expected to synchronize itself to the availability of accounting information without sacrificing performance.

The present software takes a different approach to financial performance activity. In contrast to typical practice in which an accountant gathers data from all departments and performs accounting functions after the fact, in the present sys-

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tem, accounting functions are performed concommitant with data entry. Instead of manual posting of accounting entries, posting is automatic, either continuous or at user-specified intervals (e.g., nightly). For non-accountants, the complexities of accounting are hidden completely—users simply go about their usual activities of running the business. The automatic posting process, however, generates entries in GAAP format. Furthermore, instead of a limited number of "canned" reports, a GUI-based report-writer is provided that allows any kind of report to readily generated, either on command or on schedule. At any time, a user may simply press a button and obtain a real-time, accurate financial report.

Because posting is automatic, posted entries are not guaranteed to be correct. (Because of the stringent qualification of user entries, however, errors are greatly minimized.) Therefore, unlike conventional accounting packages, entries are allowed to be modified. In the case of invoices, for example, invoices are allowed to be modified up until the time they are paid. As invoices and other records are viewed and modified, they are flagged to be checked by a centralized GL module to determine if the modification requires an adjusting entry. If so, the adjusting entry is made automatically alongside the original entry.

Although in an exemplary embodiment the GL module is a centralized module, the functionality of the GL module may be distributed among the various modules so as to operate continuously. For example, an AR portion of the GL functionality would make general ledger entries immediately to reflect payment information as it is input, a purchasing portion would make general ledger entries immediately to reflect obligations as incurred through purchase orders, etc.

To use the real-time financial capabilities of the present system, the user sets up accounts, then assigns accounts to different line items of records within the system. More than one account may be assigned to a line item. If only one account (i.e., a single default account) is assigned to a line item and an automatic posting option is selected, then the line item is automatically posted to that account.

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Default accounts are set up for various different files, such as AP, AR, cash, credit card transactions, commissions, payroll, etc., as shown in Figure 95. The manner in which these defaults are established will be described.

Accounts are set up within a chart of accounts. The chart of accounts keeps a record of each account including the name of the account, type of account, account code, etc. To add an account, the user enters information about the account within an entry screen such as that of Figure 96. Whereas debits and credits are intelligible primarily to accountants, increasing and decreasing a balance are concepts easily understood by non-accountants. Hence, when an account is first established, a button is selected designating whether the account balance is increased by a debit or by a credit. Thereafter, user may use the more familiar concepts of increase and decrease. An exemplary chart of accounts display is shown in Figure 97. Doubling clicking on a particular account results in a display such as that of Figure 98. The date of each transaction contributing to the balance is shown, together with an explanation, the journal reference number, and the amount. This screen display may be used to modify account information as necessary.

For accounts receivable, a correspondence between line items on a customer invoice and specific accounts is set up through a customer setup display, shown in Figure 99. Generally speaking, each of the different list boxes corresponds to an amount that is (or is derivable from) a line item (or multiple line items) on the customer invoice or other record. The account or possible accounts to which the amount is to be or may be posted are specified by clicking the "+" button and selecting from a pop-up list of accounts of the appropriate type. If multiple accounts are selected, one may be selected as a default account, the effect of which is explained hereinafter. If for each list box only a single account is selected and is designated as the default account (using the Set Def button), then posting is automatic and is performed on a continuous basis or at regular intervals (e.g., daily).

As a result, a truly up-to-date financial report can be run at any time.

Referring to Figure 100, an accounts receivable display is shown in accordance with an exemplary embodiment of the invention. For each customer account, there is shown the GL account to which balances are posted, the current account balance, and amounts 30, 60, and 90 days overdue, respectively. By double-clicking on a balance field, transactions records relating to that balance field are displayed. For example, double-clicking on the current balance of \$2,712.75 shown in Figure 100 results in a display such as that of Figure 101. The date of each transaction contributing to the balance is shown, together with an explanation, the journal reference number, and the amount.

Corresponding screen displays for accounts payable as those of Figure 99, Figure 100 and Figure 101 for accounts receivable are shown in Figure 102, Figure 103 and Figure 104, respectively.

If the setup of accounts indicates that an amount may be posted to more than one account, then manual account distribution is required. Referring to Figure 105, a pop-up screen display used for this purpose is shown. The assigned accounts are displayed, and the user enters debits or credits for the accounts as appropriate. The effect of a debit or credit (increase or decrease in the account) is displayed as an aid to the novice user.

Referring to Figure 106, a general journal display is shown in accordance with an exemplary embodiment of the invention. For each transaction there is displayed a journal reference number, account titles and explanation, and posting reference to the account codes of the accounts debited or credited as result of the transaction. Doubling-clicking on a particular account results in a display such as that of Figure 107. The date of each transaction contributing to the balance is shown, together with an explanation, the journal reference number, and the amount.

As a result of the continuous, automatic posting activity described, once a financial report has been defined, it may be run at any time (or at scheduled times)

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and is assured to be up-to-date. Moreover, it is verifiable, i.e., every supporting transaction may be readily retrieved and viewed. In an exemplary embodiment, a financial report is defined using a display screen such as that of Figure 108. The display follows a familiar spread-sheet-like format. For each line of the report, a line item description is entered. Then, in the appropriate column, the user enters either an account (by selecting from the chart of accounts pop-up), a calculation formula, or even the result of another report. When a report is run that requires the result of another report, that other report is run first. An actual report generated using the report definition of Figure 108 is shown in Figure 109.

A report, instead of being the line-time type of Figure 109, may be a trend analysis report. Trend analysis provides a powerful tool for understanding interrelationships between various aspects of a business. Referring to Figure 110, a trend analysis report is defined in similar manner as an ordinary financial report. A cell is selected and the user is prompted as to whether the cell contents is to be a local balance, a linked field (from another report), or a calculated field. In the illustrated example, local balance is selected, and the user selects an account from the chart of accounts pop-up, in this instance Cash in Bank #1. To investigate the inter-relation of different accounts, a further account would then be selected, say Trade Accounts Payable. Plot labels may be entered by the user that differ from the actual names of the accounts themselves. Referring to Figure 111, a trend frequency is then selected. In the example of Figure 111, the trend frequency has been set to daily. The trend analysis is then run and the raw data displayed as shown in Figure 112. Referring to Figure 113, various graphing options are provided. In the illustrated example, the data is presented in the form of line graphs.

Trend reports, aside from comparing one account to another over the identical period, may also compare the same account over different periods. Hence, in the case of both financial reports and trend analyses, an important feature is that the date range of the report is arbitrary. Historical data for all past periods (or at

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least a considerable number of past periods) is stored in the database, enabling reports to be run for any period of time, not just the current period.

#### Human, Group and Organization Performance

Having described for an order the course of events in the financial performance domain, the course of events in the personnel domain will now be described.

By and large, present-day work activities are based on the model of an 8-hour work day, 40-hour work week. What is tracked quantitatively is time and attendance. Actual performance, by and large, is tracked qualitatively. Although such a model may have been adequate for the industrial revolution, it is inadequate and without basis for purposes of the information revolution. Instead, the present system allows performance to be quantitatively tracked.

Referring to Figure 114, there is shown a human resource infrastructure for a virtual organization performance evaluation model. All company personnel are linked to a digital "HR backbone," including operational management (V.P.s, managers), engineering, strategic management (president), financial and legal personnel (CPA, lawyer), and staff within various departments (customer service, shipping/receiving, technical, accounting, purchasing, etc.). In concept, the HR backbone could be any information conduit. In an exemplary embodiment, the HR backbone is realized by the same integrated, Web-enabled, client/server database as described heretofore. Various functional blocks manipulate data stored within the database and form a personnel module.

Two functional blocks in particular from the basis for performance evaluation, a Measurement Factors block and a Score Keeper block. For each individual whose performance is to be tracked, a list of tasks performed by the individual is compiled, together with an estimate of what percentage of the individual's over.... assignment each particular task constitutes. Using this information, the individual participates in the setting of realistic goals within various categories. These goals

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are stored so as to readily accessible to the individual for frequent review. The goals in turn dictate measurement factors/parameters tracked by the "descriptive" Measurement Factors block. These factors/parameters form the answer to the question "What is the pertinent data within the database upon which to evaluate the performance of the individual?," both individually and as a team player. Suggestions received from within the organization may influence the pertinent measurement factors/parameters.

The question, "How should the data be viewed?" is answered by a group of "normative" functional blocks. These blocks generate outputs to the Score Keeper block, which measures the degree of success or failure with respect to each goal. The same outputs are input to a "presentation" block that serves to educate employees as to the effects of various normative performance measures on financial performance and on factors affecting customer satisfaction, to help employees identify trends, etc.

Customer feedback (both commendations and complaints) are preferably also be received by and input to the system. A firewall provides security for internal data and allows limited access by customers to provide feedback. Customer feedback, although not strictly objective like the other factual measures of performance tracked by the database, can be an important indicator of performance.

Referring to Figure 115, a more detailed view is shown of the kinds of data stored in the human resources portion of the database. With the exception of data relating to performance measurement factual review, the data represented in Figure 115 is static or semi-static data that changes relatively infrequently or not at all. The top portion of the figure relates to candidate data, whereas the bottom portion of the figure relates to employee data.

For candidates, data stored in the database includes personal data, previous employment data, and previous performance data. The data is obtained from the candidate and from other outside sources, and may also be made available to the

candidate, e.g., through the Web. During the hiring process, employment documents are scanned (or input directly by the candidate during the application process) into the database. For employees, data stored in the database also includes personal data, employment data and performance data. In addition, for employees, data regarding achievements and special recognition is stored.

Performance measurement factual review is dynamic in nature and may be performed in a manner illustrated in Figure 116. Depending on the organizational level, performance measurement is either financial-oriented or assignment oriented. For branches, divisions, subsidiary companies and their parent company, for example, performance measurement is financial-oriented and uses financial analysis algorithms. In particular, using the universal financial report generator described previously, any desired financial ratio may be tracked, as well as any arbitrary combination of account codes in order to discover relationships. Cash flow statements and budget analyses may also be generated. Based on this information financial performance goals may be set and contributing goals may be accurately derived.

At the department, group and employee level, performance measurement is assignment oriented.

Referring to Figure 116, evaluation of human performance is made possible by collecting an assemblage of activity data to which analysis algorithms may be applied. This assemblage of activity data is referred to as Algorithm of Activity Data. For each different assignment (e.g., Quotes, MWSs, Customer Invoices, etc.), activity is tracked in three principal ways: quantity per period, dollar volume by period, and time between stages of completion (e.g., time from posting of quote to conversion to MWS). The relevant period is preferably user-selectable. In addition, the responsible department and the upstream and downstream departments that affect and are affected by the assignment are identified (and refined, if necessary, as experience with the system is gained). RMAs affect all assignments and

are therefore tracked in relation to each assignment. For example, quotes made during a period may total one million dollars but may have ultimately resulted in half a million dollars of RMAs.

The Algorithm of Activity Data serves as a foundation for human performance evaluation. Referring to Figure 117, for each individual employee to be evaluated, various metrics from the Algorithm of Activity Data are chosen and tracked for that employee, resulting in Employee Specific Task/Assignment Activity Data. Different aspects (e.g., quantity, dollar volume, completion times) of an assignment (e.g., Quotes, MWSs, Customer Invoices) may be chosen as metric for evaluation for a particular employee.

The Factual Performance Analysis Measurement process performs calculation on the Employee Specific Task/Assignment Activity Data, for example calculating time "deltas" between different stages of completion of an assignment. Resulting data is supplied to at least three destinations: a Measuring Algorithm, a Historical Data Comparison Algorithm, and an output display structure, indicated by dashed lines. The Measuring Algorithm compares actual performance to desired performance established by goals. Preferably, goals are set by employees in consultation with management. In an exemplary embodiment, the Measuring Algorithm compares actual performance to desired performance in three different categories: routine assignments (daily, on-going), scheduled tasks (not on-going) and special projects (typically short-lived). In addition, unique date-independent measurements may programmed, for example as alerts. For example, the user may program the Measuring Algorithm to alert the user whenever the time delta between creation of a quote and posting of the quote is seven days or greater. Various priorities may be established in accordance with corresponding parameters. For example, a particular order may be marked as critical, causing an alert to be displayed if there is any slippage in schedule.

The Historical Data Comparison Algorithm archives the daily output of the

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Factual Performance Analysis Measurement and the Measuring Algorithm blocks and allows for comparison of performance data for different dates.

Within the output display structure, a hierarchy of views is presented. A first view is a complete list, based on the Algorithm of Activity Data, of departments and the tasks and projects for which they are responsible. From this complete list, the user may create the users own "short list" of departments for performance review. Different layers of management, for example, may have different departments within their scope of review.

To display performance data, the user selects a department, causing performance data to be displayed for the department as a whole. The user may further select a specific individual within that department, in which case a Dynamic Personal Tracking view is displayed. The Dynamic Personal Tracking view displays all of the chosen metrics for the selected employee. From the Dynamic Personal Tracking view, the user may transition to a Factual Performance Display. The Factual Performance Display is a subset of the Dynamic Personal Tracking view and focuses on those metrics presently deemed by the user to be most important (e.g., metrics related to sales growth, metrics related to customer service, etc.)

The Factual Performance Display highlights strengths and weaknesses of the employee and is linked, either automatically or manually, to static human resources "personal growth guides." Based on the Factual Performance Display, it may be evident, for example, that the employee in question needs training in a certain area. In this manner, the system allows training efforts to be narrowly targeted where they will obtain greatest benefit. A career path may be charted for each employee that is calculated to maximize that employee's potential.

Screen displays used for factual performance evaluation in accordance with an exemplary embodiment of the invention are shown in Figure 118, Figure 119 and Figure 120, respectively. Selection of an employee is accomplished as illustrated in Figure 118. Referring to Figure 119, performance results may be viewed

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for a single period or multiple periods, with the period being user selectable (a day, a week, a month, a quarter, etc.). In the case of the single period display, performance results for various performance metrics in different categories and sub-categories are displayed, for example: Productivity (A), including quantity per period (A1), dollar volume per period (A2) and percent profit per period (A3); Quality (B), including timliness (B1) and customer credit memos (B2); and Profitability (C). In the case of the multi-period display, the same information is viewable for multiple periods but, because of display contraints, not all of the information at the same time. Rather the user selects the categories and sub-categories of interest for viewing at any particular time. For example, if sub-category A2 is selected, then dollar volume per period is displayed for all of the periods (e.g., six).

### Percolation-Automated Low-Level Decision-Making

In order to automate a small-to-medium size business, relatively complex tasks must be automated so as to be accomplished with a few clicks of the mouse. The present system accomplishes such automation using a technique referred to herein as "percolation." Percolation involves automatically classifying records of a given type into multiple classifications for workflow processing. One or more users interact with the relational database system to take a prescribed action with respect to multiple records having a particular classification. The records of a given type are classified into multiple classifications based on "experiential" criteria having real-world business significance based on past business experience. A record may belong to a multiple categories. Records are sorted in accordance with a hierarchy of categories such that a record belonging to both a category higher in the hierarchy and a category lower in the hierarchy is sorted into a group of records belonging to the higher category. The relational database system does not allow users to take at least some actions other than the prescribed action with respect to the records. Users interact with the relational database system to change information within records, whereupon the records are automatically reclassified.

Percolation may be applied to any business function, but has found to be particularly effective as applied to PRIS (purchasing, shipping, receiving, installation and assembly), vendor invoice verification, customer collections and processing of returns. Percolation may be single-level or multi-level.

Percolation as applied to vendor invoice verification has been described previously. As was previously observed, the hierarchy of classifications is important in order to obtain the desired results. To take advantage of dynamic workflow, however, it is desirable that a user having the requisite authority be provided with the ability to change hierarchies (specify a new order of classification), both within a single level and on multiple levels. There results a very powerful ability to "slice and dice" data records stored within the database, which in turn provides for dynamic response to outside influences.

Referring to Figure 150, percolation as it applies to purchasing will be described. Sales orders resulting from quotes undergo a first level of percolation to identify sales orders on credit hold, sales orders exceeding credit limits, sales orders with customer invoices 60 days or more past due, sales orders with freight problems, sales orders with installation, sales orders with installation and/or shipping problems, sales orders with a ship group, sales orders with partial ship, etc. As a result of this first-level percolation, certain orders may be placed on hold, or corrections may be made to the order as required.

There follows a second-level percolation at the item level preparatory to placing vendor orders. Items undergo percolation to identify items with higher sales cost than sales price, items with higher purchasing cost that sales cost, items on back order with groups (install/ship), rush items, items with back order received in a "no partial" sales order, items with promotion or rebate, etc. In accordance with one aspect of the invention, such percolation in effect identifies "critical path" items for fulfilling an order, items that will take the longest to fill based on availability, installation instructions, shipping instructions, etc.

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Corrections may be made and reclassification performed until such point as the user is ready to order. The user then prepares a purchase order request, either using a default vendor determined at the time the order was placed (lowest cost vendor) or selecting a different vendor. The vendor order may then be placed by posting via the Web, or the vendor order may be posted on the Web for bid. In the latter instance, bid results are received via the Web, and the vendor order is then placed based on the bid results. The order is filled by the vendor and shipped to the reseller or drop shipped to the customer.

Note that purchasing may or may not involve vendor selection. At the time a quote is created, a default vendor is selected based on lowest advertised price. Order information may, if desired, be automatically transmitted to the default vendor. In fact, N-tier order information may be automatically transmitted to multiple corresponding vendors as described more fully hereafter in relation to supply chain management.

Referring to Figure 151, percolation as it applies to receiving will be described. Sales orders for which vendor orders have been place and that need to be received undergo a first level of percolation to identify receiving sales orders to be refused or cancelled (because of RMA, for example), COD sales orders, express delivery, sales orders marked for special tracking (e.g., call upon receipt), replacement sales orders, no partial or restricted partial sales orders with only one item, sales orders expecting back order items, sales orders with installation, sales orders without installation, inventory sales orders, supply sales orders, RMA returns expected from customer, RMA returns expected from vendor, RMA returns requiring install/de-install, etc.

There follows a second-level percolation at the item level preparatory to actually receiving items. Items undergo percolation to identify items cancelled, items to be refused, items with COD, items with express delivery, items for replacement orders, items marked back order, items in an auto-tracked sales order,

items holding up installation, items holding up ship group, RMA items needing deinstall, etc. Corrections may be made and reclassification performed until such point as the user is ready to receive. The user then starts the receiving process and, optionally, receiving status is posted via the Web or via email to selected customers and/or vendors.

Shipping percolation is in large part analogous to receiving percolation, previously described, and is illustrated in Figure 152.

Installation percolation is illustrated in Figure 153. Installation percolation may be single-level, identifying sales orders with a large quantity of installation, sales orders ready for software network integration, sales orders ready for assembling, sales orders missing one last item, sales orders with a defective component for RMA processing, sales orders with RMA waiting for vendor shipment, sales orders with RMA needing de-installation, sales orders with RMA needing reinstallation, sales orders with RMA for warranty repair (off-site, on-site), sales orders with RMA for out of warranty repair, etc.

#### Supply Chain Integration/Management

The present software program provides for Web access by various business partners to all of the information relevant to the business. The software may therefore be described as Web-enabled Enterprise Resource Planning (WERP) software. The present WERP software allows for an unprecedented degree of supply chain integration/management. Referring to Figure 154, a left-hand side of the figure illustrates a sell/demand chain, and a right-hand side of the figure illustrates a supply/assembly chain. User demand information is gathered by a user following a URL link from a customer Web site. The link accesses the present WERP software. Using the software, the user creates a quote. Assuming the ordered item is not discontinued, the quote may be converted into an order. The item may be sold complete with no component assembly required, or may be sold with component assembly required. In the former instance, the order is posted to purchasing, and

the item is ordered, e.g., by communicating order information to a vendor Web site and a manufacturer Web site. In the latter instance (component assembly is required), a component file is accessed to retrieve a unique set of components for a specific item SKU. Given the order quantity, a total component requirement is determined. Within PRIS, component grouping is performed, e.g., such that multiple "child" MWSs each contain (in bill-of-material fashion) all of the components required to assembly a single one of the ordered items, and a "parent" MWS of the children MWSs contains the corresponding number of complete items. The components are ordered by, as in the previous instance, communicating order information to a vendor Web site and a manufacturer Web site.

Note that, if an item is discontinued or not available (i.e., backordered), if the items component parts are still available, the item may still be sold, the component parts ordered and assembled, and the item shipped. Equivalent components may be substituted where necessary or convenient. Also, order information may be conveyed to a hierarchy of suppliers. In the case of a computer, for example, the vendor may be lngram and the manufacturer may be Compaq. Compaq's suppliers may include makers of microprocessors, memories, disk drives, etc., whose suppliers may include in turn wafer manufacturers, platter companies, plastic companies, etc.

One key to the type of supply chain management described is breaking down items into multiple "tiers," each successive tier including component parts for items of a previous tier, and creating a record for each component part. Supplier relationships from one tier to the next may be identified based on information that is automatically updated on a frequent or substantially continuous basis. Percolation of the type previously described may then be performed on component parts, with classification being performed on the basis of availability within multiple tiers. Availability information within multiple tiers may be obtained via the Web. If customer specified installation and/or shipping instructions are likely to

cause substantial delay in filling an order given availability information, the customer may be contacted to see if the customer desires to change instructions in order to minimize delay. In the case of channel assembly, when component parts are received, they are assembled into items for shipment to the customer.

There results a virtual inventory system with no backorders in which the order cycle time for the entire supply chain is compressed to that of a single order (single stage of a typical supply chain).

#### Web Universal Business Engagement Rules (WUBER)

Various customer-specific customizations of the behavior of the present WERP software have been described. Information representing desired customizations for a particular customer are stored in a customer file of that customer. During operation of the software, whenever customizable operations are performed, the software checks the customer file to determine how to proceed.

Such customization may be extended to embrace virtually all of the "business engagement rules," both general and industry-specific, commonly negotiated between business partners. Such business rules serve as an electronic template for specifying a customized business relationship. By providing Web access to a comprehensive ("universal") set of relevant business engagement rules, the creation and management of information-age business relationships is greatly simplified. The feature of providing Web access to a comprehensive set of relevant business engagement rules is referred to herein as WUBER ("Web Universal Business Engagement Rules").

In a preferred embodiment, WUBER not only provides for the *specifica-*tion of business engagement rules, WUBER also provides for the *enforcement* of
the business engagement rules during the course of business operations. For example, during the course of a business relationship, the customer may decide that all
shipments are to be made via a specific carrier. Once that carrier has been specified
for that customer within WUBER, the software will not permit shipments to be

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made via a different carrier.

The extent to which a customer may freely change that customer's business engagement rules may vary by customer. For some WUBER fields, all customer's may freely select any available menu choice. For other fields, bounds may be set within which the field may be changed. These bounds may vary from customer to customer. Hence, whereas an acceptable return period for one customer may be up to 90 days, an acceptable return period for another customer may be up to 180 days, for example.

New business engagement rules may be easily added to WUBER. Presently, as new business engagement rules are added, enforcement code must be manually written and added to the software program. In the future, such enforcement code may be automatically generated.

A specific example of a WUBER electronic template in table form is shown in Figure 155. Within the header row of the table are listed various customizable program tasks. Each column of the table lists various options pertaining to a particular task. Various fields of the template will be briefly described.

Various options in the Price Update column govern how products are priced and display for a particular customer. If an Activate flag is set, the options selected within the column will be enforced during operations of the software. If the Activate flag is not set, program defaults will be applied instead. Pricing may be fixed price or cost plus. The frequency with which prices are updated is selectable, e.g., daily, weekly, monthly. If a customer has obtained a quote but not yet placed an order, for example, the customer may want the quote price to not change (even if in the customer's favor) for a specified period of time. Furthermore, a price minimum update amount may be specified; for example, price changes less than a dollor (or, say, less than 1% of the previous price) might be ignored. Various other options relate to the manner in which products are displayed, for example all products, new products, discount products, products of a specific

manufacturer, etc. A Personal Product List (PPL) is a user-specific list of frequently-purchased products. A Product ID (PID) is a collection of products (usually related) saved under a single identifier.

In the Quotes column, the customer may specify which system users may create quotes, which may save/retrieve quotes, which may modify quotes, and which may submit quotes. The customer may further specify various limits, e.g., a per-quote dollar limit, a per-day quantity limit, a limit on the number of quotes made per day, etc. Similar options are provided in relation to Orders and RMAs. Note, however, that an important option in relation to RMAs is automatic RMA approval.

In the Service & Repair column, various options may be specified, including service contract length and service response time, whether service to occur onsite or off-site, various service charges, etc. In the Shipping column, various delivery options are specified. In the Tracking column, various options are specified regarding how customer order information is to be tracked, e.g., whether tracking by serial number is desired, as well as various tracking thresholds by dollar amount, how recent the transaction is, quantity, etc.

In the Invoice column, various options relating to invoice delivery are presented. In addition, the customer may specify a billing frequency and whether credits are to be applied to invoices, whether replacement invoices are to be issued, etc. In the Credit Memo column, the customer may specify whether credit memos are to be issued to the customer (external) or whether an internal credit is to be issued, etc.

In the Payment column, various payment options are specified, including whether the ability to retrieve payment information is desired, credit card limits (credit card purchase dollar limit and frequency limit), check information, and EFT (Electronic Funds Transfer) limits.

In the Security column, various security options are specified, including for

example, encryption, SET (Secure Electronic Transactions), security certificate, VPN (virtual private network), etc. Security may be handled by the customer on its own behalf or may be handled by the vendor. The present WERP software may in some instances be installed within the customer's firewall such that it becomes in essence part of the company.

The Access Group column is used to specify the access rights of different users. In the case of viewing quotes, for example, access may range from access only to one's own quotes (individual access), access to one's own quotes and those of user's whom one supervises (supervisory access), or universal access (in the case of a high-ranking executive, for example).

The Business Activities column is used by the customer to request that certain information about its business activities be tracked and made accessible. Such information may include, for example, the busiest order period (week, month) the slowest order period (week, month), etc.

The electronic template of Figure 155 is for the customer side of a business relationship. A corresponding template may also be provided for the vendor side of a business relationship. That is, from the point of view of a reseller, the template of Figure 155 expresses demands of the reseller's customers on the reseller. The template of Figure 156 expresses the demands of the reseller on the reseller's vendors.

A further example of WUBER is shown in Figure 160, showing a customer file screen display. Within the right-hand portion of the display, the customer is able to, via the Web, set customer-specific criteria for automatic RMA approval.

### Virtual Intelligent Guide (VIG)

As should be apparent from the foregoing description, the present WERP software is designed to minimize the impact of personnel changes. To achieve this goal, the WERP software incorporates a Virtual Intelligent Guide (VIG). The VIG:

1) defines a task path for accomplishing each functional task by interacting with the system; and 2) captures and applies employee knowledge to refine each task

path and disallow errors. The result is to enable relatively unskilled personnel to quickly become proficient at performing complex functional tasks in a simple manner using the software. An example of VIG was described previously in relation to accounts payable. The same model may be applied to accounts receivable, RMAs, sales, PRIS, etc.

### Tracking Prospective Customers and Vendors

Customer and vendor files may be provided not only for existing customers and vendors but also for prospective customers and vendors. In the case of vendors, prospective vendor files provide a mechanism for capturing the knowledge of buyers in purchasing and of minimizing the impact of personnel changes. In the case of customers, prospective customer files facilitate sales force automation as will be presently described.

#### Sales Force Automation

During sales calls, a salesman will often be asked various question about particulars of various business transactions. If the salesman happens to know the answer, the salesman can answer immediately. More typically, the salesman doesn't know the answer and is forced to reply "I'll have to get back to you on that." "Getting back to you" will usually take days and may even take weeks, or may simply not happen at all. Current sales force automation software does little to address this situation.

The present WERP software provides the ultimate sales force automation tool. Instead of "I'll have to bet back to you on that," the salesman can instead say "Let's check on that." The salesman may then immediately use the Web to access the information needed to answer the customer's question. Web access may be through a desktop or laptop computer, either wired or unwired, or may be wireless through a handheld or palmtop computer. Alternatively, connection to the Web may be made prior to a sales call to download for a particular customer—all of the records, the most recent records, or some other subset of particular interest.

In addition to the foregoing functionality, various features of existing sales force automation tools may be added to the present WERP software, including such features as contact management (contact profile, contact history), account management (account information, outstanding and historical activities, order entry, order history, lead tracking, sales cycle analysis), sales force management (expense reporting, territory assignment, activity reporting, special events tracking), time management (calendar, single and multi-user scheduling, to-do lists, ticklers, notes, timestamps), telemarketing (call list assembly, call recording, call planning, call reporting), customer service (request assignment, tracking and reporting, order status and tracking), etc. All of these functions can be performed "on-the-fly," in real-time with up-to-the-minute information. This real-time operation is made possible because the underlying data is the same item sold/item detail data used throughout the system, simply viewed from an SFA perspective.

Figure 157 is a block diagram of a client/server business automation system in which a common database supports both end-to-end business process automation and sales force automation.

Referring to Figure 158, the sales force automation capabilities of the system of Figure 157 are represented in greater detail. A sales force automation module combines known sales force automation functions with additional functions made possible only by the end-to-end business process knowledge base stored in the single database described previously.

Known sales force automation functions include, for example, activity logging (actual time and data of daily activites by customer), intelligent notes (sortable and editable), and triggers (reminders) for follow-up calls, major opportunities, etc. The functions are supported by a summary display (drawn from the customer file) used to display contact information for customers by department and title. Various other functions may also be provided.

An expense reporting function is also provided. Unlike conventional sales

force automation tools, however, expense information is combined with compensation information stored in the database in order to gain a complete picture of the profitability of a saleman. Based on profitability, a rewards structure may adjust the compensation of the salesman and provide performance feedback to the salesman through the sales force automation module.

Forecasting information may also be displayed to the salesman through the sales force automation module. Because the database stores complete historical transaction information, a sales forecast can be readily compiled based on the historical base. Other types of forecasts can also be compiled. For example, market projection information may be entered into the database (downloaded or entered manually), and based on this information, a forecast can be compiled. A forecast can also be compiled based not only on current customers but based on prospective customers. Such a forecast provides additional motivation for a salesman to convert prospective customers into actual customers.

Information from WUBER may also be displayed to the salesman through the sales force automation module. When a new salesman succeeds a departing salesman, the new salesman, by consulting WUBER, can readily learn the established business engagement rules for a particular customer.

Information from the human performance module may also be displayed to the salesman in the form of an activity summary display. In an exemplary embodiment, activities in various categories (columns) are quantified (rows) in dollars where applicable (for both sales and purchase orders), in quantity where applicable and in duration where applicable. For example, dollars sales, dollars purchase orders, and unit volume (quantity) are displayed for the previous year, the present year, and for the previous month, as well as for the peak month (max.) and the low month (min.). In other categories, e.g., ship-to-date and payment history, an a areage time in days is displayed, between the time an order is placed and shipped and the time an invoice is sent and paid, respectively.

An example of a screen display for Sales Force Automation is shown in Figure 161.

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#### Purchase Requisition Budget Forecast

Orders, represented by MWSs, may be for resale or for internal use. A field within the MSW record distinguishes the type of MWS, including whether it is for internal use. Just as historical analysis and forecasting may be applied to customer sales, these same techniques may be applied to internal sales. The cycles of pinch/spend that often afflict corporate departments may therefore be avoided. Managerial personnel are able to determine easily in real time how much of a budgeted amount has been spent and how much remains to be spent.

#### Comparison With Known Workflow Systems

In contrast with known workflow systems, the present system, sometimes referred to hereinafter as the ICETM (Internet Commerce Equalizer) system, represents a purpose-built application suite where all applications are both physically implemented and logically rational source or target applications in a Dynamic WorkflowTM Environment

The ICE system may be described as a broad-spectrum suite of Internetoptimized business applications, that are designed and built to permit the implementation and execution of workflows without the mandatory parameter setting,
software switch setting, customization and workflow preparation common to all
other workflow environments. This is made possible by several, simultaneous
development and runtime environment characteristics and by several carefully
considered simultaneous application design and development practices.

To appreciate the difference between the ICE system and conventional workflow systems, the background of conventional workflow systems will be briefly described.

Arguably the origins of workflow are as ancient as the origins of industry. In modern industry, workflow has taken the form (under different names) of the assembly lines of Henry Ford, or as the doctrines of time and motion as formalized by industrial theorists like Taylor and Gilbraith.

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Very recently, (the 1980s) workflow has appeared in computing and office automation in the form of task-based menus and wizards. Most recently, (the mid-1990s) workflows have taken the form of environments that tie ordinary business applications together into larger, structured super-applications that consist of applications tied together in a workflow definition environment driven by workflow "engines."

These environments have the capability of performing state-transition or branching logic in contrast to the more mundane task-based menus. And unlike wizards which are normally used for intelligent installation procedures, workflows are usually used to support the structured execution of routine business applications.

Examples of such environments could include SAP's workflow operating in the Dr. Schier<sup>TM</sup> graphical workflow environment or Baan's Dynamic Enterprise Modeling running in the COSA<sup>TM</sup> environment. And, these environments have one common heritage with workflow of the past. Notwithstanding words like "dynamic" in their names, these environments are inherently static.

Static is used to mean that once a workflow has been built and implemented in any of these workflow environments, it stands as a defined super-application. To execute a workflow in any of today's existing workflow environments that has not been previously defined, prepared, and implemented is not possible. A user attempting to do so would find himself in the same position as a factory worker who attempted to execute an assembly procedure off the assembly line. He would find himself without resources or the means to execute any procedure for which a physical infrastructure had not yet been created.

The ICE system has a true dynamic workflow environment. This means that the users of the ICE system can go places with the application even when the metaphorical steel rails of an assembly line have not yet been built there.

In order for this to happen, the ICE environment must be fundamentally

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different from competing pre-defined, structured workflow environments. The basis of this dynamic flexibility and the goal of all recent design efforts is the enabling of all ICE applications as potential sources or targets in a workflow.

This potential must be inherent, and not the result of extensive preparation, switch setting, or parameter setting of older-generation applications. It does not even matter if this preparation is largely automated in a separate (static) definition and development environment, because such relative ease of building workflow scaffolding is qualitatively different than not requiring scaffolding for workflow mobility in the first place.

Real-world business users of older-generation enterprise applications have made comments like, "it's like taking off handcuffs," to navigate and solve business problems in the ICE system. Dynamic Workflow means that the user is not bound to one pre-defined way of doing a business procedure or of solving a problem.

Of course, the ICE system can enforce business procedures (in fact most routine business procedures in the ICE system are completely automated) and of course the ICE system is capable of enforcing GAAP and APICS standards in accounting and manufacturing. But wherever possible, the ICE system gives the user a choice even as it automates routine procedures. And when it comes to exception handling, the Dynamic Workflow environment in the ICE system saves significant time and effort.

In ordinary ERP and business systems, sequences of applications known as workflows are built up using specialized development environments. As with any other application, workflow or subsystem that is built up from either lines of code or from higher level components or applications, nothing exists that has not been previously defined and built.

In other words, to execute a particular workflow, someone must first implement it. The implementation system must follow strict rules and in many

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cases perform complex re-configurations of the workflow applications so that they are properly enabled as "source" or "target" applications. The workflow environment starts out either as a template of other pre-existing workflows, or simply as a blank slate on which to build the workflows that are to eventually be executed.

In the ICE system, by contrast, it is possible to navigate a comprehensive "web" of applications in any way needed by the user, with each and every application already a potential source or target application to every member of the navigation web.

A unique feature of the ICE system is its capability to support Dynamic Workflow. Dynamic Workflow may be described as follows:

- Conventional workflow starts with a blank slate and then builds up
  the workflow from individual applications or components. Even
  when workflow templates are used those templates simply specify
  which components are added by default to the blank slate.
- In conventional workflow systems, applications must be carefully conditioned, parameterized, and otherwise programmed to work together in a specific workflow, because they must often pass messages, passed parameters, or transactions between them. Those transactions must be data-type and business-rule-logic compatible.
- The applications that comprise a workflow will rarely work outside of the specific work flows they were designed for. This is because in conventional application systems the applications work more or less independently and are typically constructed around one or more specific (and independent) data files.
- This means that work flows must be constructed just like applications. Nothing is executable unless it has already been defined and implemented. The only difference is that applications are built up from routines and workflows are built up from applications. Workflows are simply hyper-applications that are built from components at a coarser level of granularity and a higher level of abstraction than the individual applications that make up the workflows.
- Even the most sophisticated and flexible of the existing workflow systems require active developer, designer, analyst and system-support intervention before the workflow can be implemented.
- Conventional workflow works as a "start with nothing and build" method. No application-to-application pathway exists unless and until

it is actively implemented.

The ICE system has a number of architectural characteristics that when combined, produce a unique Dynamic Workflow execution environment:

- It is a characteristic of the ICE architecture that all applications are object-based methods that interface with a unified, synchronous, "solid-state" database.
- These methods are written in such a way that most of them can be safely invoked in any order. Because these methods are actually only different logical views of the same "solid-state" database, any changes made by one method to the "solid-state" database, are simultaneously, instantaneously, and synchronously virtually "posted" to all other methods, in the ICE system.
- It should be noted that this posting is strictly virtual. No physical
  parameter passing is done and none is required, because there is only
  one database operating under strict rules of commit control. All database updates are accomplished synchronously, and under the protection of internal database commit control such that any data update is
  instantaneously and simultaneously propagated through any view that
  sees that data.
- In contrast to workflow systems where business objects are placed on a blank slate, and where no workflow exists that has not been previously defined, the ICE system is a web of business functions (methods). Potential connectivity and application-to-application workflow are universally present.
- This permits a "start with everything and set guidelines" workflow model.
- Normally, in the routine user interaction with the ICE system, routine, pre-defined business workflows are followed, and these are documented and programmed into the system as user guidelines, task-based menus, wizards, or procedures. Workflows may also be defined with state-transition intelligence, such that a particular data entry value will result in changing the next application along the application path.
- At end-user security levels, these procedures can be defined so that any change from a normal business procedure requires supervisor approval.
   User roles, rights and authorities can be comprehensively managed.
- However, if an exception condition arises, the user of the system has
  the option of invoking whatever necessary relevant application is
  required, with the assurance that data integrity, data consistency, and in

most cases, business rules will not be violated.

- Occasionally, management or supervisors will want to change business rules on purpose, and this can be done at a high enough level of supervisory system authority.
- Furthermore, all workflows in the system and the applications that
  comprise those workflows are structured in such a way that the workflows can readily be reversed at any time. An example would be when
  a sales situation turns into an RMA. In such a situation, the same
  workflow can be changed into a reverse workflow at any stage by simply reversing navigation.
- It should be noted, that whenever necessary, rational business rules can
  be overlaid on top of this "universal navigation Web" as would be the
  case if the invocation of a method results of posting the general ledger.
- In such a case, business rules dictate that the original posting general ledger must remain intact, and the corresponding opposite entry must be made. Even when such exception conditions are defined, universal navigation of the system is still possible if the user has a high enough level of authority.
- By creating a workflow environment where nearly any business method invocation sequence can be followed without violating system integrity, the ICE system has achieved a new level of system flexibility and the ability to respond to business contingencies.
- Even in the most flexible conventional workflow systems, situations
  arise where new methods need to be inserted into a workflow
  sequence, or other methods need to be removed, or an alternate method
  substituted for the original method. In a conventional workflow system, the new procedure must be defined, the applications properly prepared, through the setting of parameters and switches, and then the
  workflow must be tested.
- In such a situation, both application logic and database changes can have a negative "ripple effect" throughout the system often requiring extensive impact analyses.
- Obviously, this process is time-consuming, and is not practical for response in a contingency or exception situation. In the ICE system predefined workflows are set out as guidelines for normal business procedures such as order entry. At the same time, the user is able to override these guidelines whenever necessary. It means that the system can respond dynamically to changing business conditions.
- While it should be emphasized that the system does not create applica-

tion functionality or business methods were none existed previously, it should also be emphasized that the system is capable of dynamically adapting business workflows to ever-changing conditions. This allows the ICE system to respond dynamically to business impacts.

- Even where new methods are required to support previously undefined and non-implemented business method functions, the developer workload to create such new functions is greatly reduced in the ICE architecture because of its natural immunity to ripple effect. A new business method has zero impact on all existing business or future new business methods, and any additions to the database have zero impact on all existing or future new business methods.
- Even in the rare instance of a change to the database, automated data
  type declaration and synchronization in the ICE development environment allows the rapid, comprehensive and automated update of all the
  business methods in the system. This is an extremely powerful feature,
  and a necessary one because in order to be intrinsically workflowenabled, all ICE applications must conform to the same data integrity
  and consistency rules.
- In practice much of the work of creating workflows in standard workflow environments consists of analyzing and controlling ripple effect, achieving project scope control, and conditioning the existing applications to work in the workflows that the designer wishes to implement. The ICE system eliminates these traditional bottlenecks to workflow development.

The foregoing discussion has focussed on the background, rationale and benefits of Dynamic Workflow. The following discussion will focus on keys to Dynamic Workflow in the ICE system.

 Eliminate the need to pass physical transactions or parameters between applications

An important purpose is served by eliminating the requirement to pass physical transactions or parameters between applications. Much of the conditioning and preparation of conventional workflow systems involves detailed data type checking and transaction matching from a source object to a target object. This is true whether the source object is a "pure" object or a hybrid object consisting of a more conventional database table and corresponding application.

If all the applications in an application system are actually methods that act

on a unified "solid-state" database, and if all data type checking is done centrally, then one major source of potential application incompatibility is eliminated. This is exactly what is done in the ICE system. The ICE system is developed using a RAD environment (e.g., 4D from ACI, Inc.) that is capable of performing automated, centralized data type checking and declaration.

In fact, in the ICE system, data or parameters cannot be passed to any ICE application because once any data in the ICE system are updated, they are already in any and every method or view in the system. While this architecture could conceivably create currency problems and scalability limits in very large implementations, presently, no single ICE instance is designed to support more than a hundred or so users. Thus, ICE can operate on a "solid-state" instance of persistent data.

In this environment, data integrity rules are enforced by conventional RDBMS mechanisms. In fact, the ICE data model can be deployed as an Oracle database for example. Data consistency cannot be violated either because of all ICE applications share identical data consistency rules. Business rules are guided (not enforced) by a combination of application logic and workflow.

ICE can be and is coded to enforce certain business rules without exception. These would include things like double entry bookkeeping transactions. In all other cases however, the user with a high enough level of authority can invoke applications in what ever order suits the business case.

• ICE applications are coded to "open navigation Web" standards.

Every ICE application is written as if it could be invoked by any other application in the ICE system, and contains the navigation infrastructure and user enabling to support the invocation of any other application in the ICE system. With very rare exceptions, which are only made to conform to certain accounting or business restrictions, this is the actual case.

For the purpose of facilitating the execution of routine business processes, task-based, conventional workflow, and automated procedures or agents can be

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used. The big difference comes in when it becomes necessary to override an established procedure, or possibly even create, on-the-fly as it were, new procedures or exception-handling workflows.

One metaphor that describes the ICE system workflow in contrast to conventional workflow is that conventional workflow presents the implementation staff with a blank slate on which all workflow constructs must be implemented before they can be used. The ICE system presents the users with an open white board of potential navigation paths that are typically defined by navigation guidelines.

Regardless of which ICE application a user happens to be in, a direct navigation path exists to any other ICE application. When the user gets there, the user can almost always perform meaningful create, read, update, or delete operations on the data that they see through the new "window" that they have chosen.

Furthermore, each ICE application is written at a much broader level of granularity than the typical application in a conventional system. Each view in the ICE system encompasses what would normally be two or three levels of drill down in a conventional system.

Even the "fast path" user in a conventional system typically cannot make any changes to the data that they access through the manually invoked applications, without potentially violating one or more business rules. In any case, the user of a conventional system is looking at data that were designed to be stored either as unit records or as the rows of data in a relational database designed to be displayed on one 80 column by 24 line screen.

This is true even in systems that have been retrofitted with modern graphical user interfaces. In such systems, the graphical user interface is an aesthetically pleasing overlay on top of applications and data definitions that were designed to completely different standards.

The following table first lists in **bold** some of the primary architectural

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characteristics that distinguish the ICE system from conventional workflow systems. The rest of the table lists some of the consequences and spinoffs of this architecture.

Fundamental conven-	Fundamental ICE™	Fundamental benefits of
tional workflow archi-	architectural character-	ICE™ are in bold
tectural charactistics	istics are in bold	102 410 111 2014
are in bold	isucs are in bold	
Fixed, static binding naviga-	Open Navigation	Enjoy the flexibility of Inter-
tion	Open Navigation	net browser-style navigation
Individual applications pri-	All applications are actually	No data type mismatches or
marily maintain individual	object-based methods that	errors are possible, mes-
tables, or as in the case of	view the same synchronous	sages, parameters and trans-
"unified database" products,	database	actions are passed virtually,
separate data areas		not physically eliminating
		transaction errors
Multiple independent data	One logically "solid-state,"	One update by one user
tables typically supported by	synchronous database	using one business method
multiple relational database instances		simultaneously and instanta-
instances		neously "posts" that update across all users and all busi-
		ness methods
E-commerce and Internet	E-commerce and Internet	Both user navigation and
enabling typically a retrofit or	architecture is intrinsic to the	inter-system communication
add-on	ICE™ (Internet Commerce	are fully internet enabled
	Enabler) architecture	-
Applications must be retrofit-	ICE™ applications (business	All business processes are
ted and customized to work	methods) are designed,	reversible, flexible and exten-
in the workflow environment	architected and written spe-	sible. The user has the func-
because they were originally written to be either stand-	cifically for the workflow	tional equivalent of a
alone or conventional task-	environment. Every busi-	browser "back button," as
based menu driven applica-	ness method is a potential source and/or target method	well as a routine workflow "forward button." The poten-
tions	to every other method.	tial navigation web is a 3-
40113	to every culer ineulog.	dimensional geodesic of
		business methods
Applications tend to be frag-	Applications are written at a	Applications have a central
mentary. In order to see all	much broader level of granu-	function with multiple over-
relevant data, several layers	larity. Although underlying	lapping functions or data dis-
of drill down are provided	synchronous data is stored	play. It becomes
	internally as 3NF relational	immediately apparent to a
	data (no repeating groups,	user where they might need
	elements or foreign key	to move to place the data
	dependencies), users can	they want to primarily manip-
	see (and manipulate) at least	ulate in the center of their
	2 and usually more "drill-	chosen "data window." Fur-
	down" levels at once.	thermore, that movement is
Secondary characteristics	Foatures:	always possible.
follow:	Features:	Benefits:
	[	
Start with nothing and then	Stort with open "	Heam anand first on business
Start with nothing and then	Start with open "go anywhere"	Users spend time on business
implement business functions	navigation and define business	process definitions, not on
1		

Business process and best	Business process and best	Much less chance for errors.
business practice templates	business practice templates	Much greater flexibility of navi-
contain applications lists, state	contain business method navi-	gation and execution if the user
transition rules and extensive	gation guidelines and state	needs to go beyond the bound-
application configuration	transition rules only	aries of the predefined workflow
	transition rules only	anes of the predefined workflow
switch, parameter, and data		
compatibility information  Just because an application	All applications are actually los	Note connet got out of cumpher
• • • • • • • • • • • • • • • • • • • •	All applications are actually log-	Data cannot get out of synchro-
works in workflow "A" does not	ical methods that view the	nization. The results of busi-
necessarily mean it will work in	same synchronous database	ness actions can be seen right
workflow "B" Applications must "know" they	and are compatible Applications don't "know" or	away
are part of a workflow and won't		Skipping a step, navigating to
1 '	"care" if they are part of a work-	an alternate step or viewing
work unless properly prepared	flow or not	results won't corrupt the work-
Worldlows are logical and abite		flow
Workflows are logical and phys-	Workflows can act as if they	Ripple effect is eliminated,
ical super-applications made up	were super-applications but	implementation time is greatly
of a number of sub-applications	workflow architecture is logical	reduced, users can concentrate
	only	on business solutions, not
Adding of specific and an arrival		implementation mechanics
Adding or removing an applica-	Adding or removing an applica-	
tion from a workflow has a sig-	tion changes the logical out-	
nificant impact on the workflow	come of a workflow but has no	İ
and on the applications the	effect on the other applications	
workflow contains	in that workflow	
Implementing a workflow	Implementing a workflow	<b>}</b>
requires development and test-	requires a rational business	İ
Exception handling workflows	proposition	
must be anticipated or their	Exception handling conditions	
need encountered and then	can occur, require the ad hoc	İ
	execution of a previously unex-	
they must be developed before	ecuted workflow and optionally	
they can be implemented Conventional ERP and other	be formally defined ICE™ applications are meth-	Savoral potential courses of
business applications must		Several potential sources of
support physical message and	ods that view the same, syn-	error are eliminated, particularly
	chronous database. Physical	data type and transaction for-
parameter passing	transactions and parameters	mat mis-matches
Most conventional workflow	are not passed.  ICETM applications cannot be	Los gracios davibility of paving
implementation errors occur	further configured for workflow	Far greater flexibility of naviga-
because of application configu-		tion, fewer errors, faster
ration and transaction data	because they are already	response times
1	designed and implemented for	
enors	workflow; transaction data	
	errors are impossible because	
	all applications are already	;
	viewing the same synchronous	:
X	data	
A workflow may be reversed	A workflow may be reversed at	A business process may be
(e.g., change an order into a	any time by choosing a reverse	reversed without needing to
return) by completing the order	navigation path.	complete the first process and
workflow and then invoking a		then to complete a counterbal-
return workflow		ancing process

A management override of nor-	A management override of nor-	It is possible to perform unfore-
mal workflow procedures that	mai workflow procedures	seen tasks or to prepare non-
has not been thoroughly tested	involves invoking alternate	conforming (to any existing
risks violating business, data	business methods which all	workflow) quotations, pro for-
consistency and in some	obey the same data consis-	mas or bids. Entire transaction
cases, even data integrity rules	tency and integrity rules. Even	sets may be duplicated or re-
	apparent violations of business	routed to additional customers
	rules (e.g., create a fictitious pro	in a zero programming, zero
	forma order with no customer	workflow engineering environ-
	and missing suppliers) will not	ment
	corrupt data integrity or consis-	
Accounting rules (e.g. GAAP	tency. Accounting rules (e.g. GAAP	
required double-entry book-	required double-entry book-	
keeping and transaction preser-	keeping and transaction preser-	
vation) must be externally	vation) are enforced by	
enforced through workflow,	workflow and business method	
business and data consistency		
rules	rules at point of entry	
Even in so-called "dynamic"	In ICE TM, all business methods	All ICE™ workflows potentially
workflow modeling systems,	are, in the object-based sense,	exist as un-executed but possi-
the actual workflows are stati-	dynamically bound to the oper-	ble entities
cally bound to the operating	ating environment	
environment		
By the time an exception solu-	Any workflow is already poten-	Instant response to exception
tion is implemented in a con-	tially implemented in ICE™.	conditions
ventional workflow	When an exception arises, it	
environment, conditions caus-	can be dynamically responded	
ing it have already have	to.	
changed (e.g., the customer		
may not be a customer any-		
more!)		
Conventional workflow applica-	ICE™ applications are actually	No further setup or conditioning
tions are ordinary task-based	logical views and methods that	of applications is necessary in
menu style programs adapted	are initially architected and pur-	order to perform workflow func-
to an externally imposed work-	pose-built to operate in a	tionality
flow framework A major source of error in con-	dynamic workflow environment All ICE™ methods are logical	All data in all applications for all
ventional workflow systems is	views of the same physical and	users is always current. Data
data type mismatches	logical database—data type	integrity and consistency are
and typo mornatorios	check errors are literally impos-	enforced in one place
	sible	Choroca in one place
Data types (e.g., packed,	Data types are automatically	
numeric, zoned, alpha, bitmap)	synchronized and reconciled in	
must be declared by a devel-	the ICE™ development envi-	
oper	ronment—any and all type dec-	
	larations when necessary are	
	strictly automated	
Conventional development	The ICE™ development envi-	
environments have separate	ronment automates data type	
tools to enumerate change or	reconciliation and optionally	
enhancement impact. Adding	can report the changes an	
an application can impact much	enhancement may have	
of the existing system.	caused. All applications use	
	the same data consistency	
	rules	

Conventional ERP system	ICE™ is designed and opti-	ICE TM is optimized for your
architecture must be capable of	mized for business instances	business, not for a multi-billion
supporting Fortune 100 enter-	requiring less then 125 GB of	dollar multinational. You don't
prises. Smaller implementa-	live transactional data and is	pay for all that overhead either
tions must carry the design	able to radically reduce com-	in license and consulting fees
overhead of these architectures	plexity and overhead (this does	or in performance
	not rule out supporting multiple	·
	ICE™ instances in a single	
	enterprise)	
Any business method in a con-	Any business method in ICE™	
ventional workflow environment	is potentially either a source or	
is a physical application that	target method to all other meth-	
must be selected and adapted	ods in a read mode, and is a	
as a source and/or target appli-	logical source or target to most	
cation in the workflow	other methods in a create,	
	update or delete mode	
Workflows are strictly uni-direc-	Workflows are all potentially bi-	
tional except for branches and	directional. For example, an	
loops. Even so, the workflow	order entry workflow may turn	
must end at a predetermined	into an RMA (return material	
ending point.	authorization) at any point sim-	
	ply by taking the reverse navi-	
	gation path.	

It will be appreciated by those of ordinary skill in the art that the invention can be embodied in other specific forms without departing from the spirit or essen tial character thereof. The presently disclosed embodiments are therefore considered in all respects to be illustrative and not restrictive. The scope of the invention is indicated by the appended claims rather than the foregoing description, and all changes which come within the meaning and range of equivalents thereof are intended to be embraced therein.

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## APPENDIX A: NIGHTLY UPDATE REPORT

Subject: MegaNetworkNightly report (12/18/98 10:45 PM) Sent: 12/19 6:39 AM Received: 12/18 10:44 PM From: MegaNightly@meganetwork.com To: charles@meganetwork.com iohn@meganetwork.com kenny@meganetwork.com kim@meganetwork.com wendy@meganetwork.com won@meganetwork.com No reminders today \_\_\_\_ ------ Nightly Update Reports Follow ------All MWS numbers are in sequence. No MWS cancellation problems were found The following sales records had ord/rcv/shp date problems which were repaired successully. No other date problems found. M98-28538 11/5/98 No MWSs with unit X qty price/cost problems were found. The following sales records have items that are received and not shipped.

M98-28619 12/7/98 NoPartial UNION BANK OF CALIFORNIA M98-28632 12/9/98 NoPartial UNION BANK OF CALIFORNIA M98-28633 12/9/98 NoPartial UNION BANK OF CALIFORNIA M98-28639 12/11/98 NoPartial UNION BANK OF CALIFORNIA

 M98-28640
 12/11/98
 NoPartial
 UNION BANK OF CALIFORNIA

 M98-28657
 12/17/98
 NoPartial
 UNION BANK OF CALIFORNIA

 M98-28658
 12/17/98
 NoPartial
 UNION BANK OF CALIFORNIA

 M98-28659
 12/17/98
 NoPartial
 UNION BANK OF CALIFORNIA

 M98-28660
 12/17/98
 NoPartial
 UNION BANK OF CALIFORNIA

 M98-28662
 12/17/98
 NoPartial
 UNION BANK OF CALIFORNIA

The following shipping records shipped in the last 7 days have defualt manifest frt totals.

11/23/98 UPS Pickup#: 99076868 11/24/98 CALL TAG Pickup#: 502960111 12/1/98 CALL TAG Pickup#: 504632811 12/4/98 0306-243219- Pickup#: 12/11/98 UPS Pickup#: 200 monitor 12/14/98 UPS Pickup#: 990768 12/14/98 UPS Pickup#: 990768 12/14/98 SECURITYEXP Pickup#: F71649 12/14/98 SECURITYEXP Pickup#: F71650 12/15/98 SECURITYEXP Pickup#: F71651 12/15/98 SECURITYEXP Pickup#: F71652 12/15/98 UPS Pickup#: 990768 12/16/98 SECURITYEXP Pickup#: F71653 12/16/98 SECURITYEXP Pickup#: F71654 12/16/98 UPS Pickup#: 990768 12/17/98 UPS Pickup#: 990768 12/18/98 UPS Pickup#: 990768

The following RMAs have date or qty problems and were NOT fixed.

R-272186CR 7/24/97 R-274615XDM 8/12/97 R-292761CR 12/22/97

No RMA credit problems were fuond.

The following RMAs have been received from customers in the last 30 days and need credit memos.

R-321917CR Invoice: 12/1/98

R-322083CR Invoice: 12/15/98 R-322118CR Invoice: 12/16/98 R-322267CR Invoice: 12/15/98

No RMAs have been received from customers in the last 30 days that need replacement MWS attention.

All customer invoices that have been printed have been issued.

The following customer invoices are issued and not printed.

\*=Old

*17803	Customer	UNION BANK OF CALIFORNIA 12/8/98 Paid in full
*17827	Addendum	UNION BANK OF CALIFORNIA 12/14/98 Paid in full
*17828	Addendum	UNION BANK OF CALIFORNIA 12/14/98 Paid in full
*17829	Addendum	UNION BANK OF CALIFORNIA 12/14/98 Paid in full
17845	Customer	SOUTHERN CALIFORNIA EDISON 12/16/98
*17857	Customer	SOUTHERN CALIFORNIA EDISON 12/18/98
17858	Customer	UNION BANK OF CALIFORNIA 12/18/98
17859	Customer	UNION BANK OF CALIFORNIA 12/18/98
17860	Customer	UNION BANK OF CALIFORNIA 12/18/98
17861	Customer	UNION BANK OF CALIFORNIA 12/18/98
17862	Customer	SOUTHERN CALIFORNIA EDISON 12/18/98

All items shipped in the last 30 days have been invoiced.

The following customer invoices were found to have commission problems:

M97-25714 10/15/97 for Charles commission & invoice GMs are different.

17843 M98-28645 12/16/98 for VERNON commission & invoice GMs are different.
17843 M98-28645 12/16/98 for KIM SEALE commission & invoice GMs are different.

Commission dates were all found to be valid.

All customer invoices issued in the last 90 days have 2 commissions.

No duplicate vendor invoices were encountered.

All vendor invoice billed amounts equal payment register totals.

All items received in the last 30 days have been fully shipped.

The following MWSs have in house items that need to be ordered and/or received.

M98-28657 12/17/98 M98-28658 12/17/98 M98-28669 12/17/98 M98-28660 12/17/98 M98-28662 12/17/98 M98-28663 12/18/98

All items on hold or cancelled are not on a payment register.

All Vendor Payment Register payment amounts match Ven Invoice payments.

All Vendor Payment Register credit amounts match Ven Collection amounts.

All Vendor Payment Register Credits have been issued properly.

No PrePaid Vendor Invoices were found on Non PrePay Vendor Payment Registers.

The following vendor credits have possible duplicate expected credits.

Exp-4478 00/00/00 Invoice:

Exp-5185 00/00/00 Invoice: 50-10686-21

All expected credits have an invoice assigned.

All Vendor Invoices have payment schedules that match the Invoice total.

All Ven Invoices are assigned to an AP Invoice Register.

All Ven Collection records are assigned to an AP register.

All Paid Ven Invoices are assigned to an AP Payment register.

All used Vendor Credits are assigned to an AP Payment register

The following MWSs have shipped in the last 30 days but are NOT fully or over invoiced, or not printed.

\*= New

*M98-28573	Customer	SOUTHERN CALIFORNIA EDISON Unprinted invoices
*M98-28647	Customer	SOUTHERN CALIFORNIA EDISON Unprinted invoices
*M98-28649	Customer	UNION BANK OF CALIFORNIA Unprinted invoices
*M98-28651	Customer	UNION BANK OF CALIFORNIA Unprinted invoices
*M98-28652	Customer	UNION BANK OF CALIFORNIA Unprinted invoices
*M98-28653	Customer	UNION BANK OF CALIFORNIA Unprinted invoices

No customer invoice tax problems were found.

All unissued customer invoices were successfully issued.

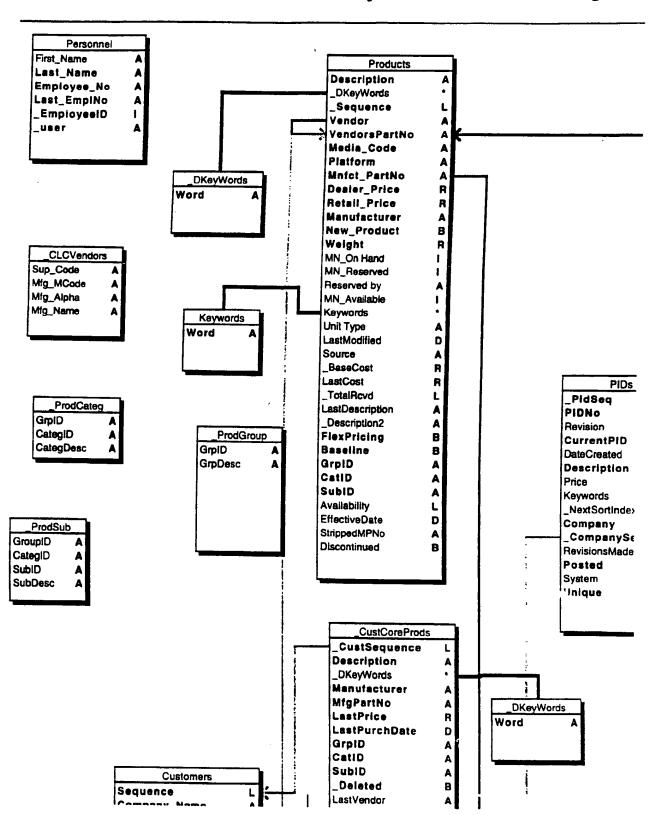
The following Customer Credits have no tax and are taxable.

CM-10432-2-10 5/15/97 Restock

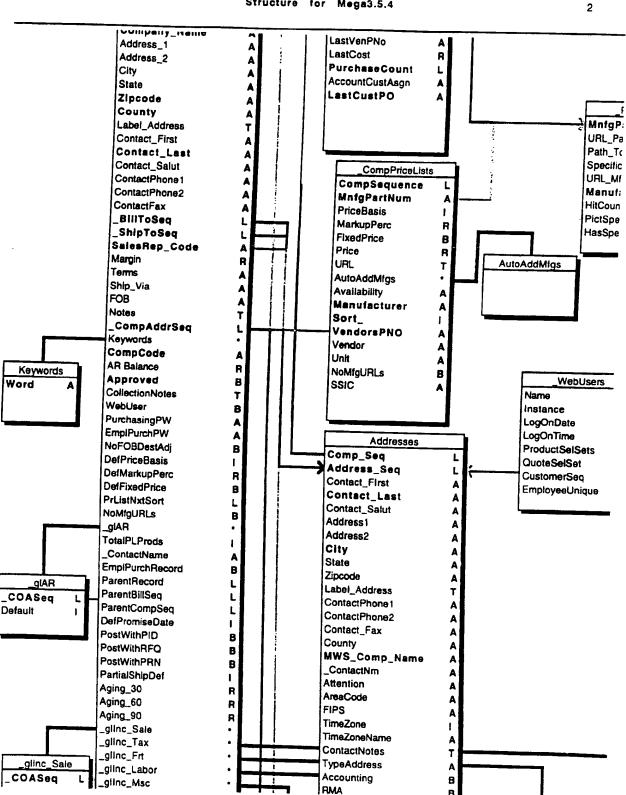
Won Choi Mega Network, Inc. Phone:(408)730-9138 x839 Fax:(408)720-1293 won@meganetwork.com

APPENDIX B //8
Structure for Mega3.5.4

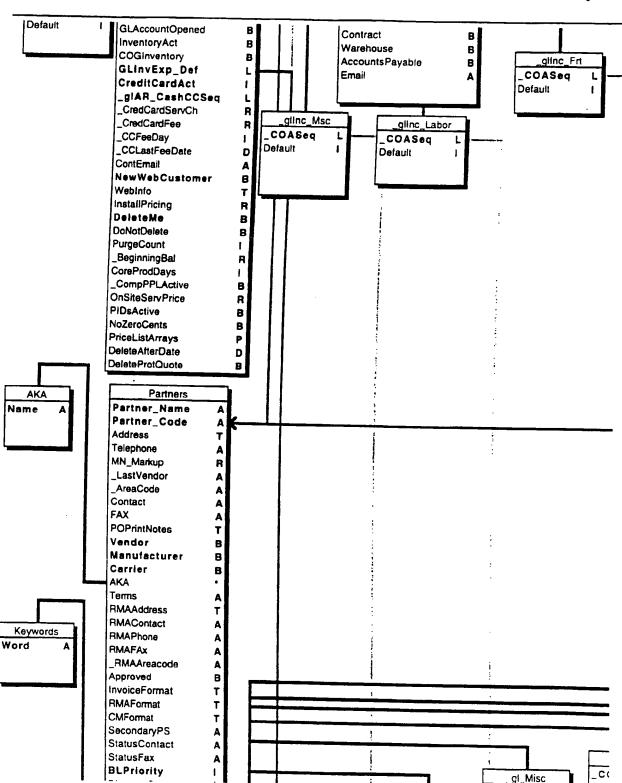
B'I



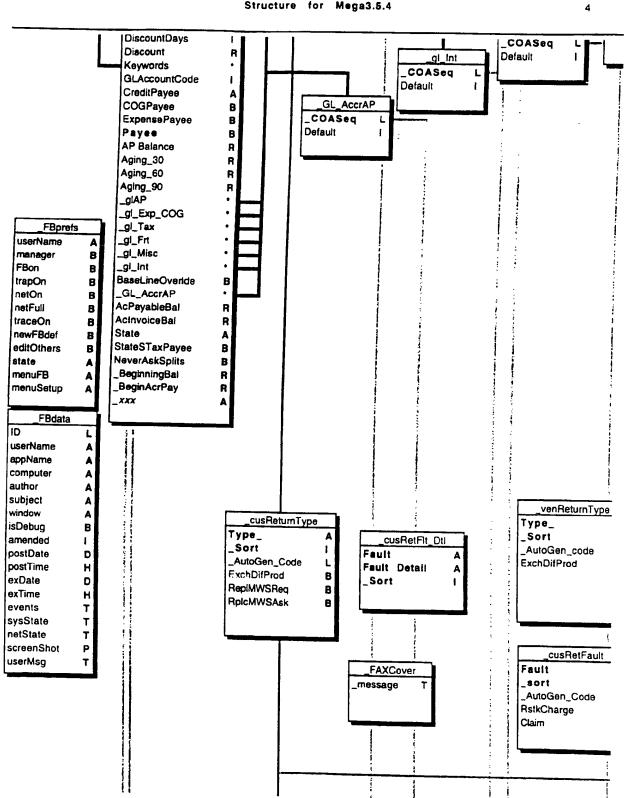
119 Structure for Mega3.5.4



120 Structure for Mega3.5.4



/2| Structure for Mega3.5.4



; ;

122 Structure for Mega3.5.4

5 venRetFit\_Dti Fault Fault Detail \_sort venRetFault Fault \_sort \_AutoGen\_code Claim Claims \_ClaimSeq \_RMASeq ClaimNo Against Contact Phone Fax Address CaseNo TrackingNo A R R B AmountClaimed AmountRcvd Closed ClaimDate D

Structure for Mega3.5.4

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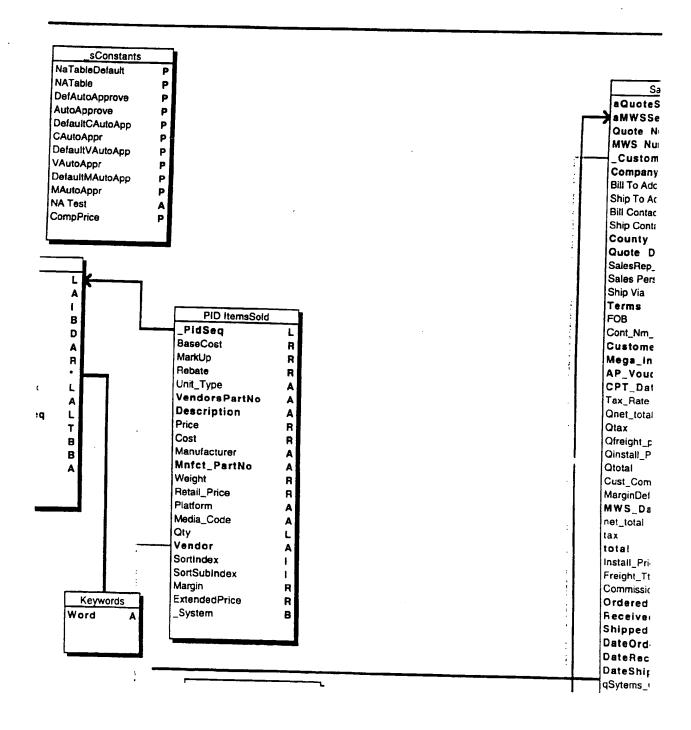
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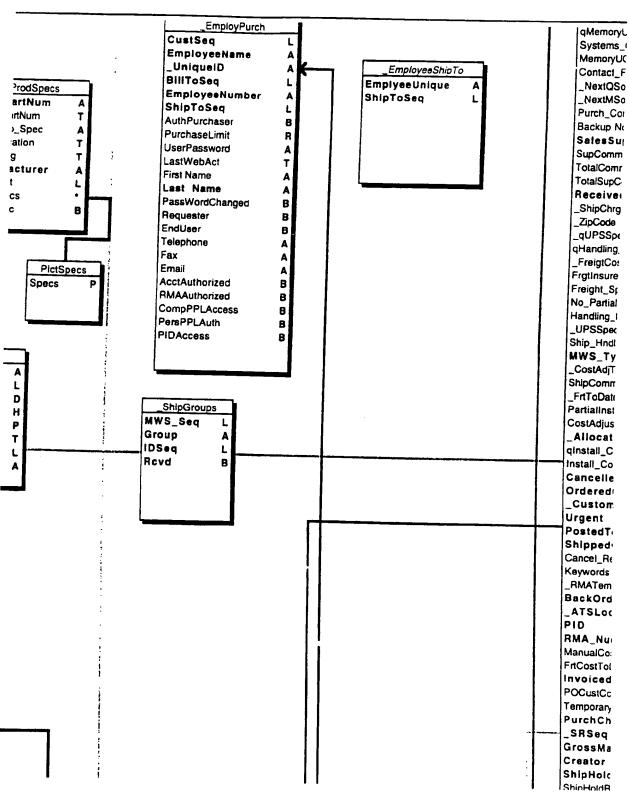
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Structure for Mega3.5.4

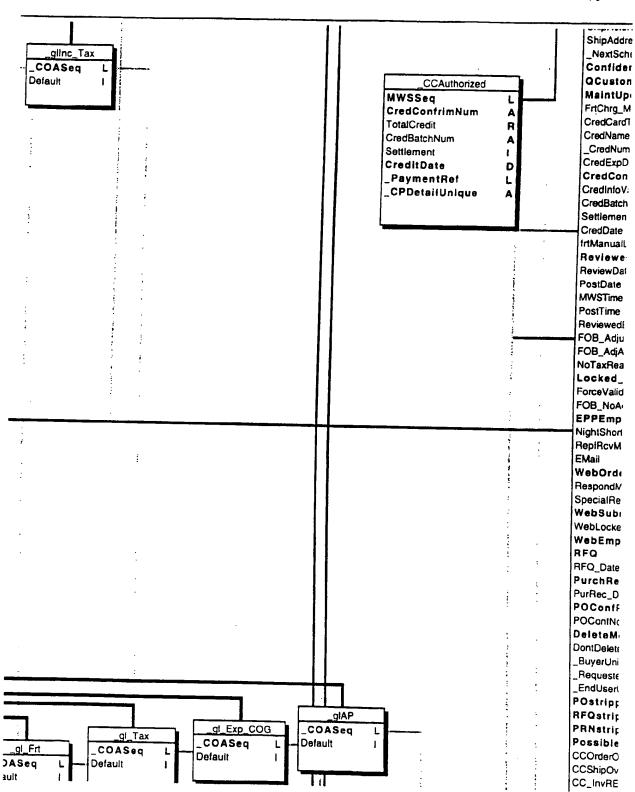
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Structure for Mega3.5.4



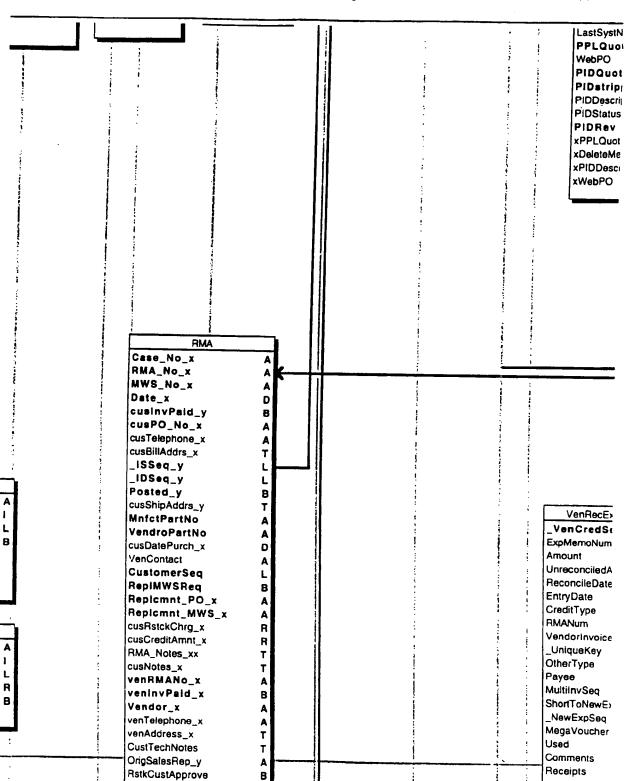
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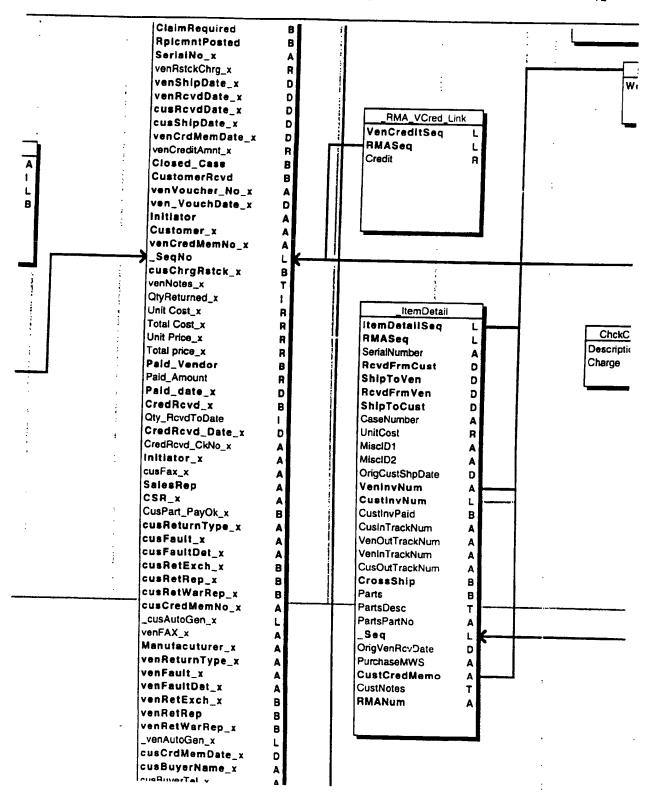
128 Structure for Mega3.5.4



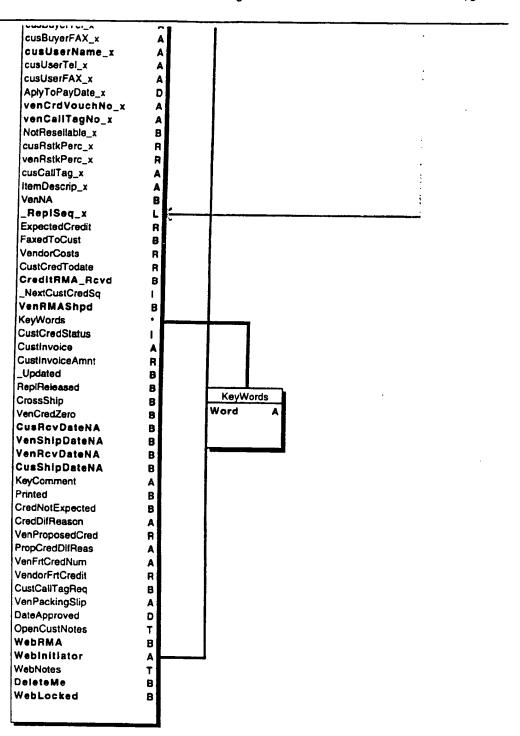
129 Structure for Mega3.5.4



/30 Structure for Mega3.5.4



/3/ Structure for Mega3.5.4



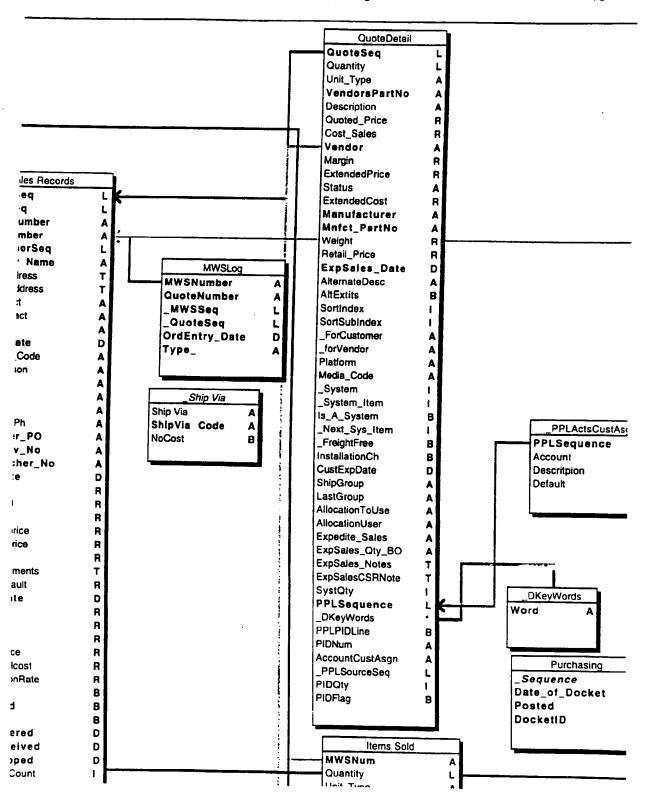
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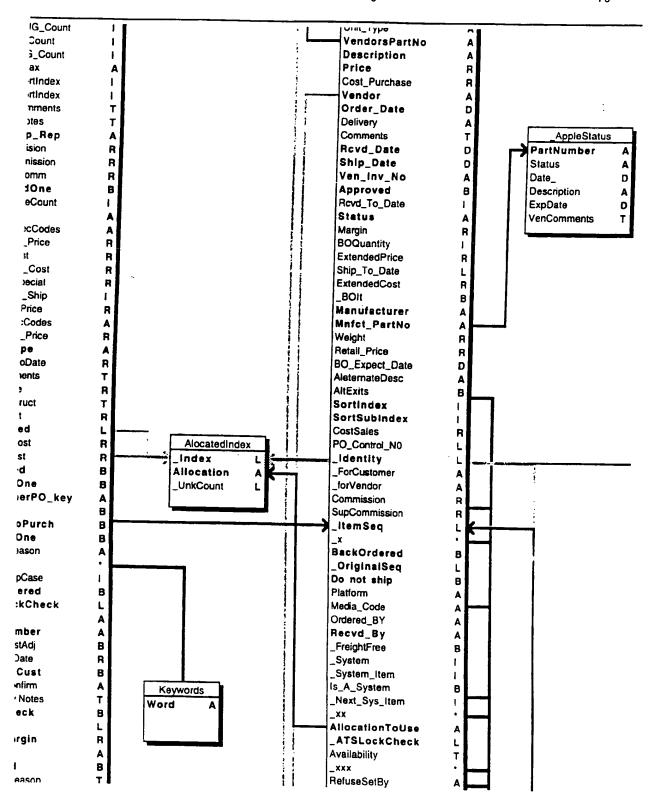
132

Structure for Mega3.5.4

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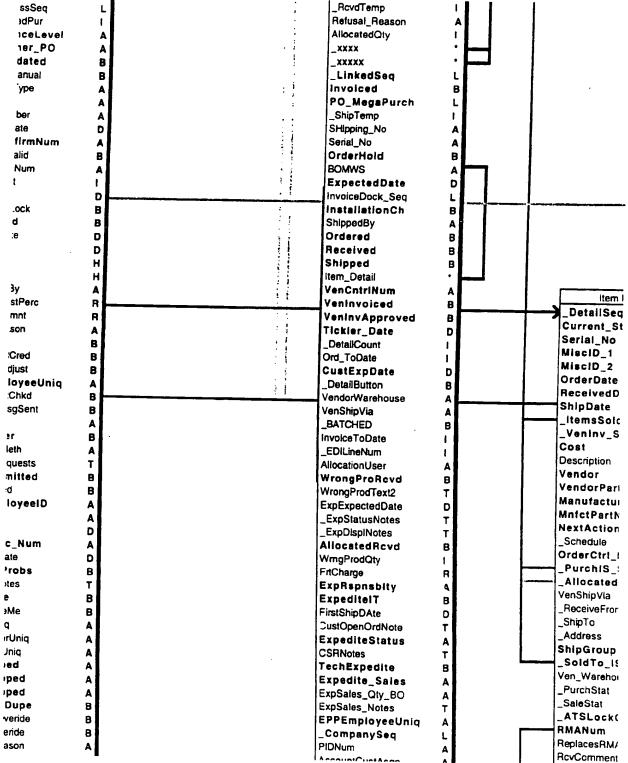
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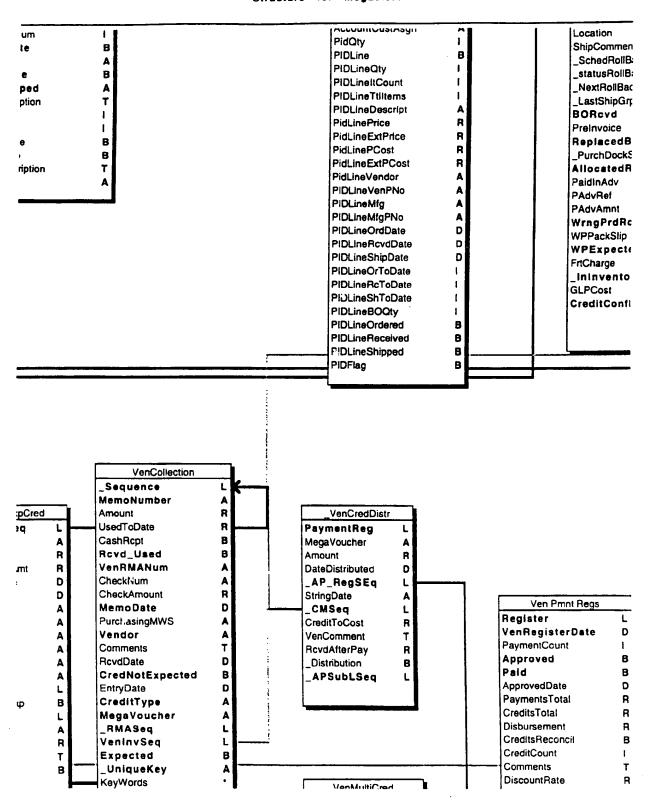
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135

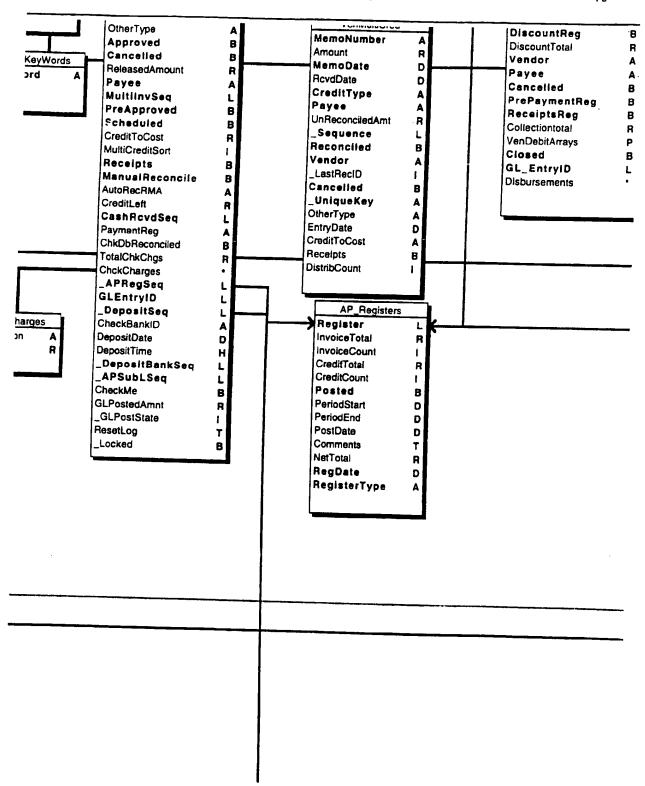
Structure for Mega3.5.4



136 Structure for Mega3.5.4



/3) Structure for Mega3.5.4



/38 Structure for Mega3.5.4

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Structure for Mega3.5.4

/ 40 Structure for Mega3.5.4

22

ActsCustAsq
Account A
Description A
CustomerSeq L

L A A B

ShortStock

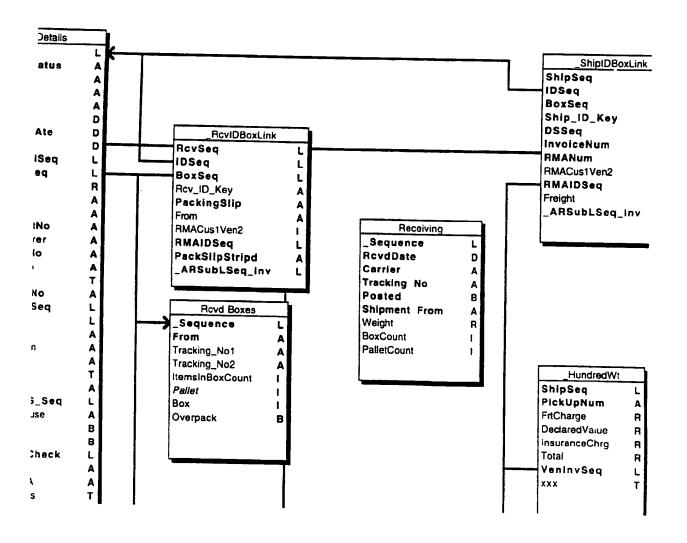
MtgPartNum A
Stock I
SSDate D
MegaWaitIng I

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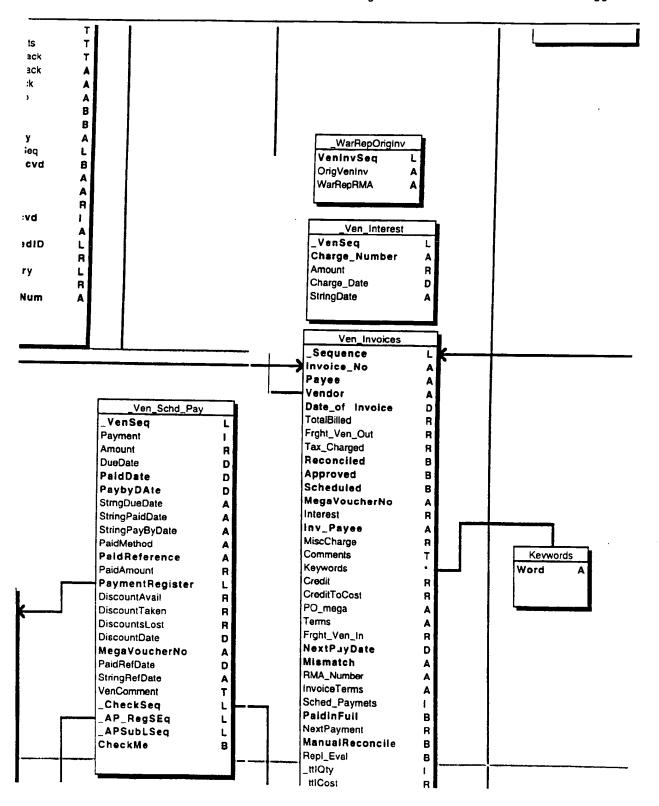
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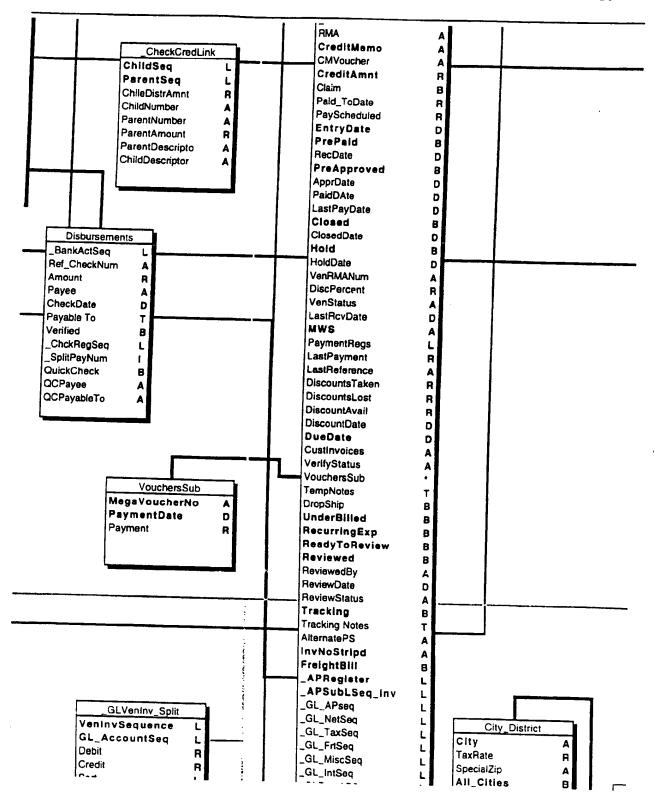
142 Structure for Mega3.5.4



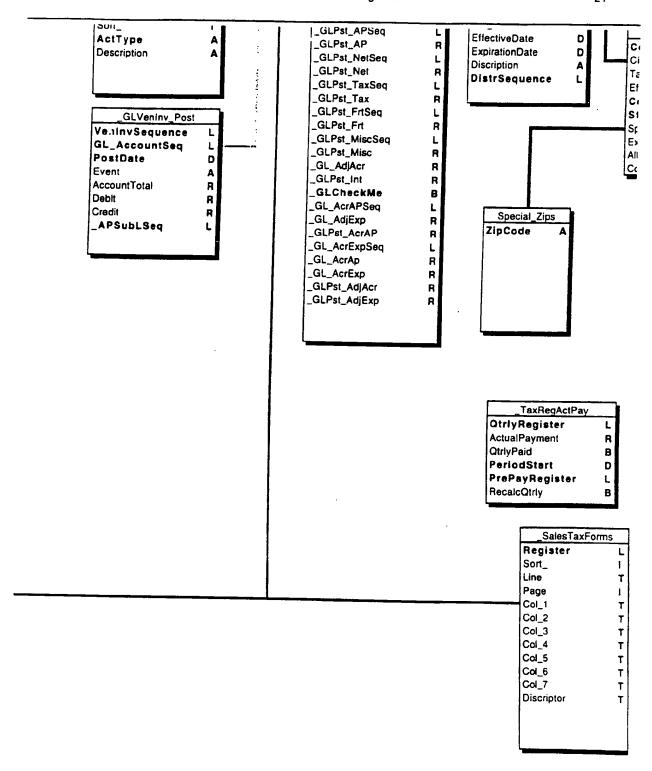
/43 Structure for Mega3.5.4



j 44 Structure for Mega3.5.4



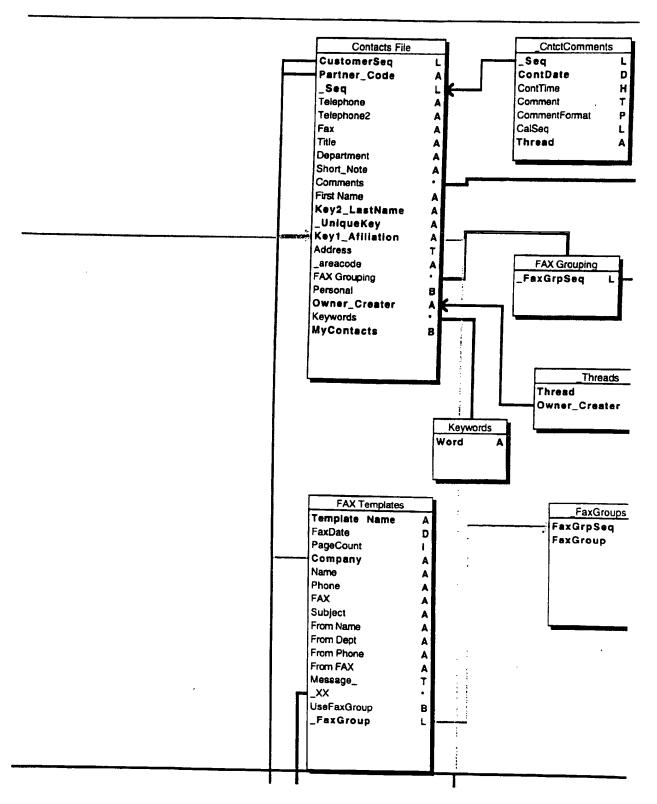
145 Structure for Mega3.5.4



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146 Structure for Mega3.5.4

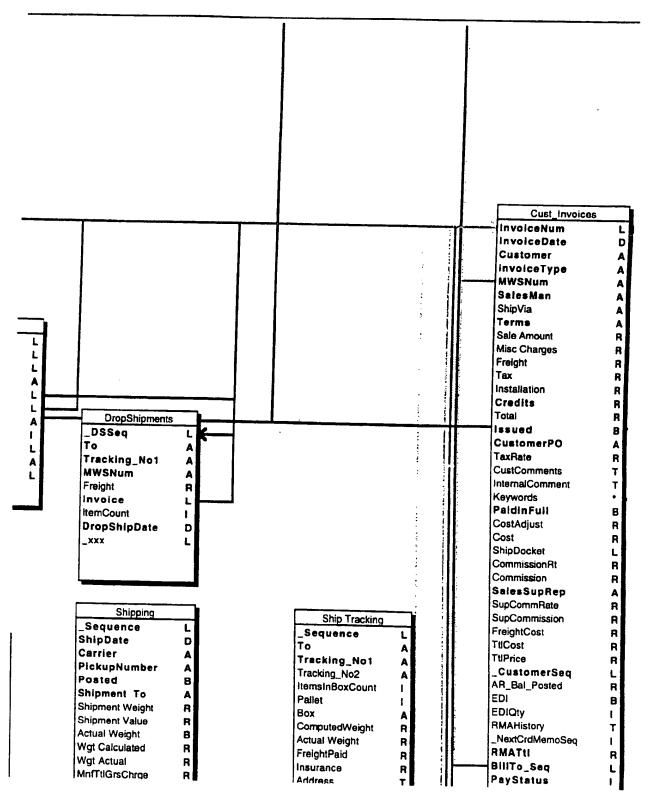
147 Structure for Mega3.5.4



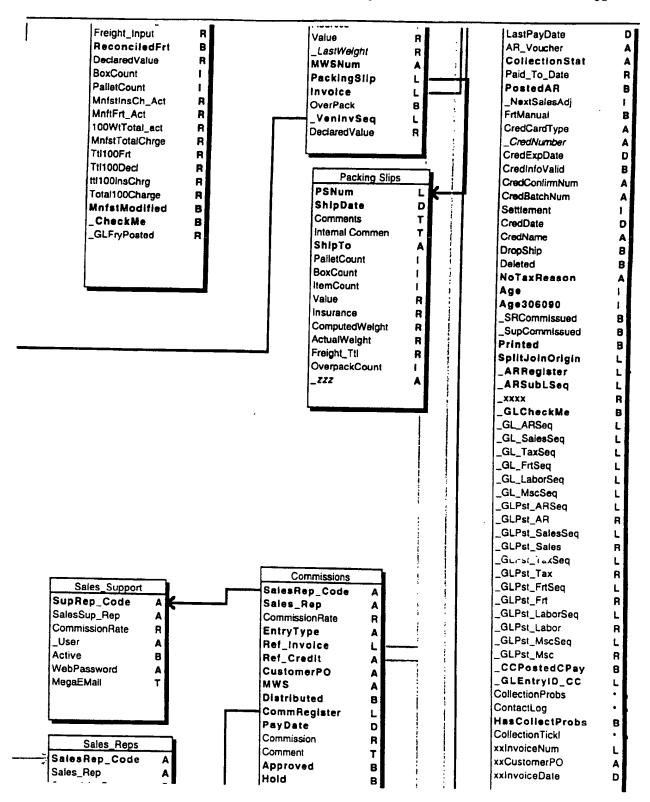
148
Structure for Mega3.5.4

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_XX _xxx B _xxx B	
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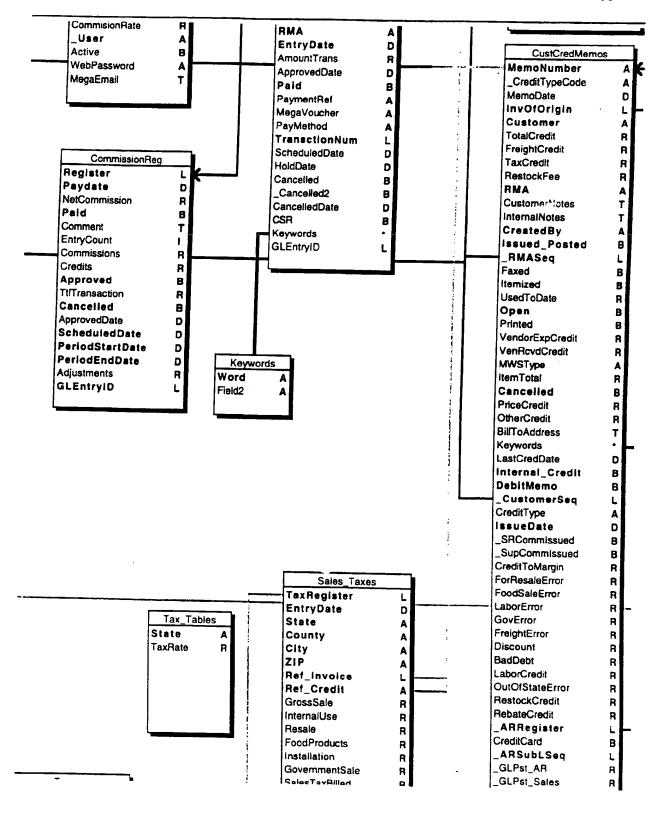
/ 4 9 Structure for Mega3.5.4



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ノント Structure for Mega3.5.4



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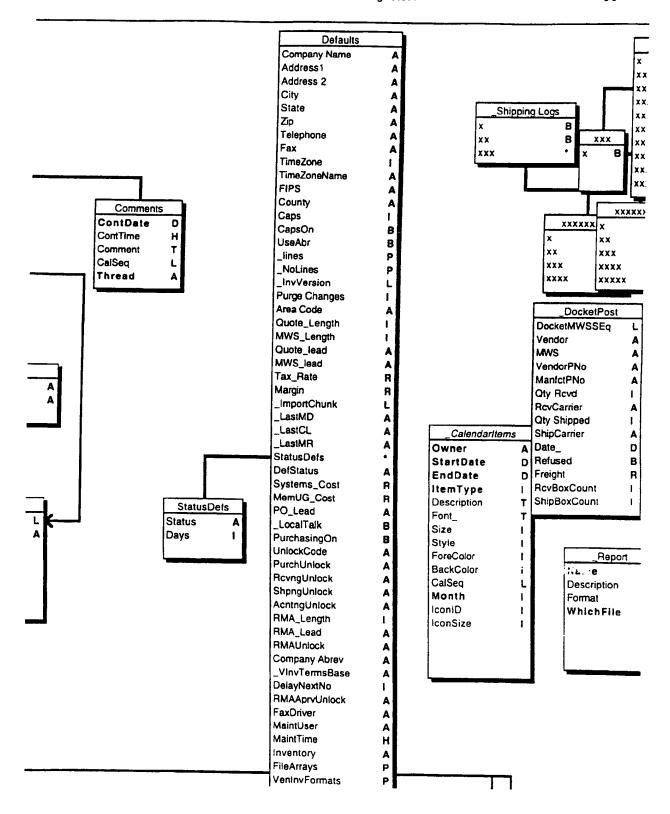
Structure for Mega3.5.4 34 laxes -----\_GLPst\_Tax BadDebt R ounty\_Descrip A \_GLPst\_Frt ResoldintUse R ty\_District \_GLPst\_Labor xRate R ReturnedItems R \_GLPst\_Msc R fectiveDate **Discounts** R D GLCheckMe В Freight ode R A \_GLPostState Į OutOfStatTxPaid R ate A \_GLPst\_ARSeq L **PrePayRegister** L xecial\_Zips \_GL\_ARSeq L Adjustment В pirationDate D \_GLPst\_SalesSeq L Paid В \_Counties В \_GL\_SalesSeq OutofState mments Т R \_GLPst\_TaxSeq WilCall В \_GL\_TaxSeq **PriceCredit** R CountyTaxes \_GLPst\_FrtSeq FreightCredit R SalesTaxSeq \_GL\_FrtSeq LaborCredit R County GLPst\_LaborSeq OutOfStateAdj R CountyTaxableTt R \_GL\_LaborSeq **TaxCredit** R CntyDescription A \_GLPst\_MscSeq GovernmentAdjus R CityDescription A \_GL\_MscSeq ResaleAdjust R DistrSequence L **FoodAdjust** R NonTaxableTtls R Hold В CreditsIssue R Cancelled В NotTxbleCreds R \_Sequence L CountyTax R TotalCountyTax R IntUseTrans В TaxRegister Register **Financials PrePayment** В Sequence StartPeriod D Report\_Name Fina A EndPeriod D StartDate Se Pald В Row1 EndDate PaidDate D Row( ColumnCount State A Row Portrait Comments Т ActB. ColDefiinitions AmountDue R DefFont vPeriodStart D DefFontSize L LastUpdate Ð DefFontSTyle L ColDefiinitions **DueDate** D **ProcName** A Fin \_RegText T Column TrendReport В Col StoredSets P Width Тур AternateCalc В Header Α Con PaynientMade UseHeader В R Bala Version Bala **GLEntryID** Cal Calc Cell Links Cel Discriptors CellID Cell Version SourceCellID Cell LineNotes T Value Bala QRinstr В ValueSet \_*xx* SrcFinName A FinName

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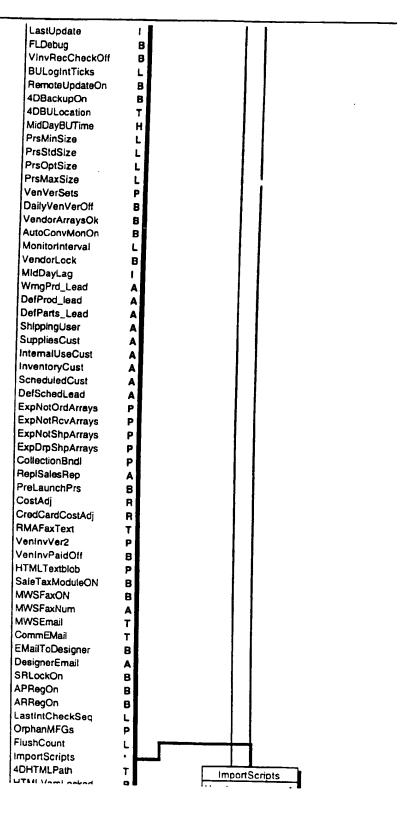
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/53 Structure for Mega3.5.4

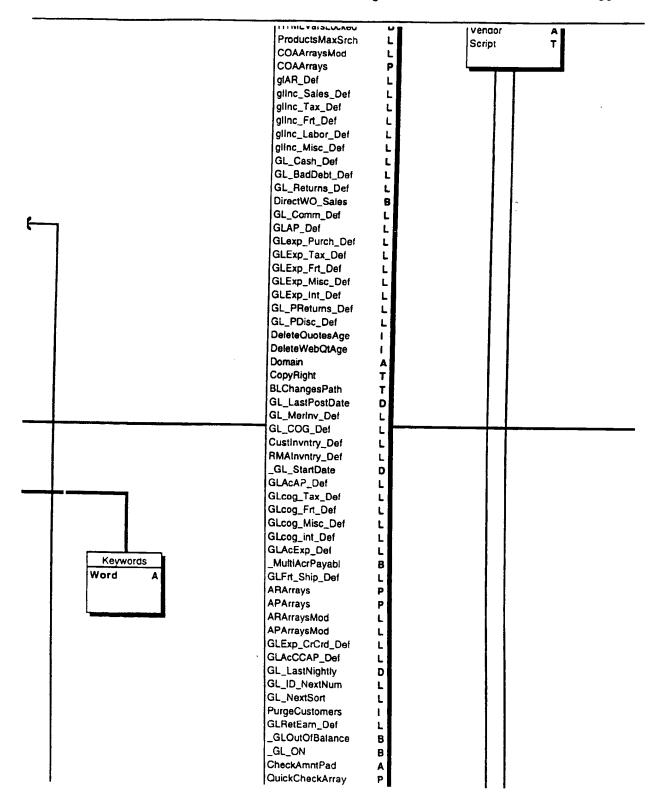
/57 Structure for Mega3.5.4



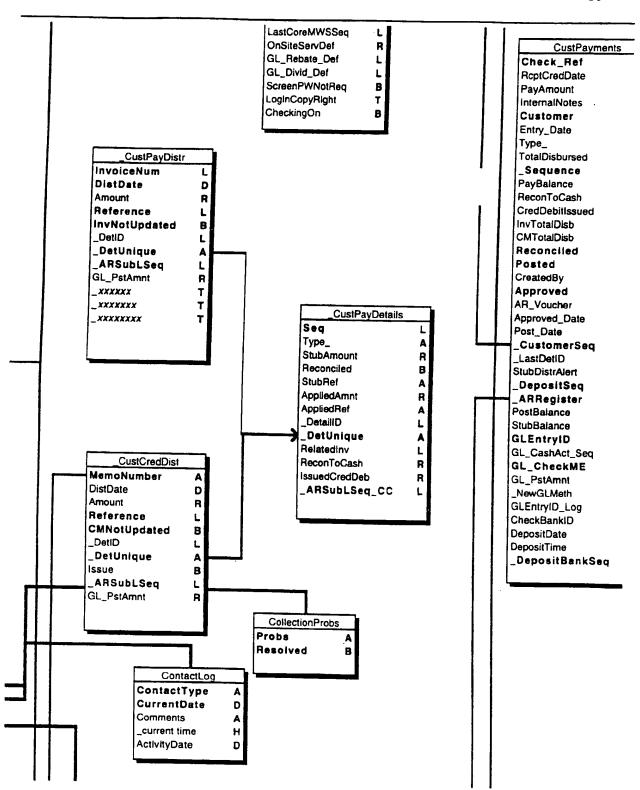
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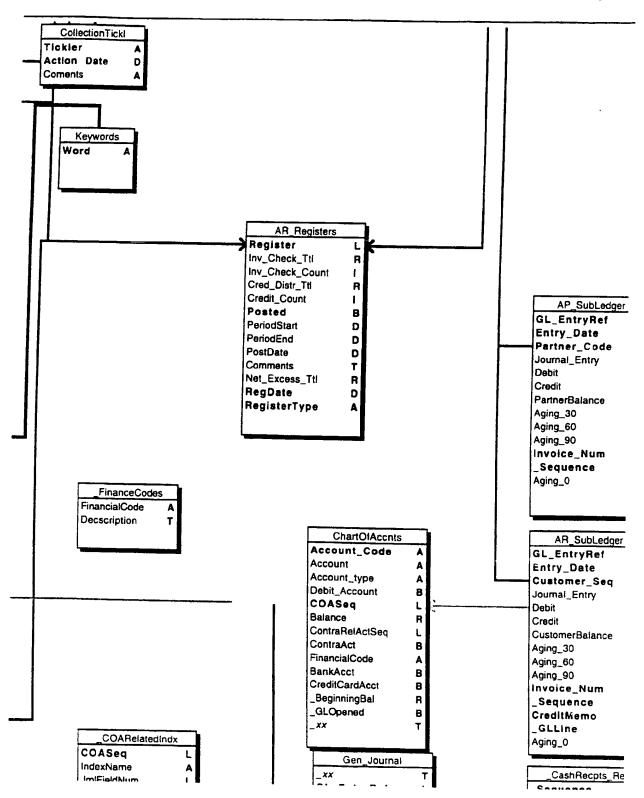
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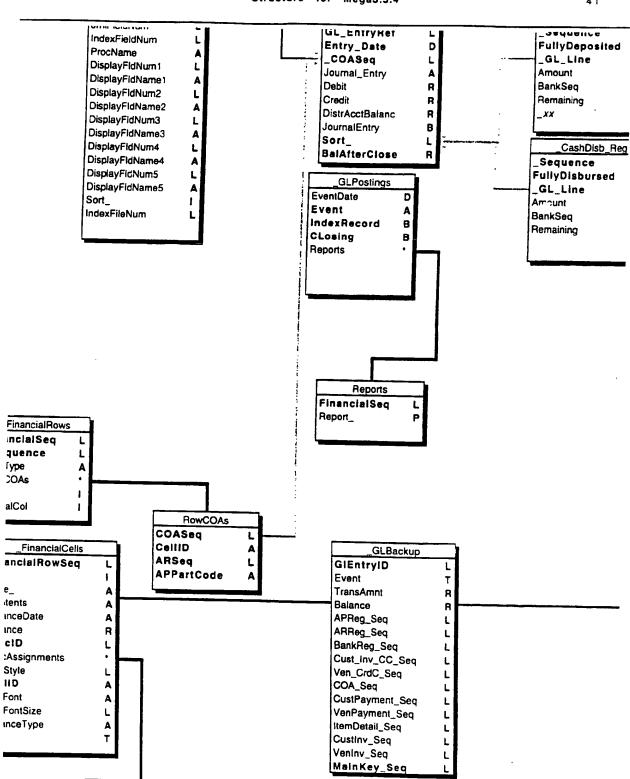
パラフ Structure for Mega3.5.4



/ゴ8 Structure for Mega3.5.4



159 Structure for Mega3.5.4



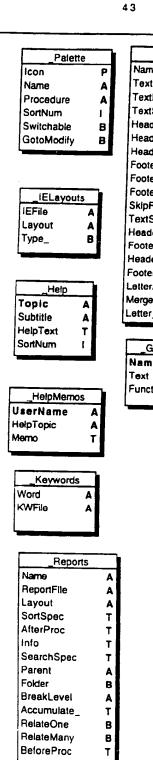
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160 Structure for Mega3.5.4

42

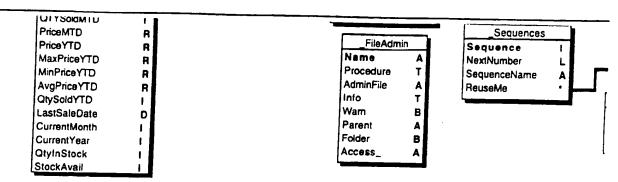
CalcAssignments
CalcID L
Mutiplier I

161 Structure for Mega3.5.4



Recving Logs EnterInList Constants DBName A 8 Version A Text **DataVersion** ı TextFor Users XX В Credits P TextSiz UserName XXX В CreditsHeight ı Header Preferences\_ T XXX В BeepSound Headerl В LastLoginDate xxxx D KeywordsActive 8 Header: XXXXX В LastLoginTime н **DefaultPrefs** T Footer XXXXXX В Accesses DefaultAccess T FooterF Duration L XXXXXXX **PalettePICTS** FooterS Online В VersionDate SkipFire Defaulticon 1 (XXX TextSty **FileAccess** ·T В **PalettePICTS** Header: InputLayouts В PICT FooterS **PaletteLoc** 8 Header LetterFont В A **FooterA** LetterFontSize В R LetterAl LetterFontStyle MergeF **Printer** Letter\_ DebuggerLoc OutputLayouts NextNoDelay InputLayouts ı \_Git ContactsLoc InputFile L Name ContactsOpen Layout 8 ProductsLoc L Function ProductsOpen В ContactsLoc2 OutputLayouts ProductsLoc2 **OutputFile** FaxDriver Lavout MyCntcsLoc1 **PurchaseStats** SortDefault В MyCtctsLoc2 Mnfct Part No DefSort **PrsMinSize** Manufacturer PrsStdSize Weight R **PrsOptSize** Last Cost R **PrsMaxSize** LastVendor UseUserPrsSizes LastPurchDate D ContactFont **QtyMTD** ContactSize CostMTD R ScreenPassword MaxCostMTD R **eMailAddress** MinCostMTD R P **TableSwtchDelay** AvgCostMTD R **QtyYTD** ŧ EasySelects **CostYTD** R Name **MaxCostYTD** R **EasySelectFile** A MinCostYTD R SearchSpec T AvqCostYTD R SortSpec T Notes т AfterProc T **RMACount** Info Т Description Parent A LastCustomer Folder В LastSalesPrice R RelateOne В MaxPriceMTD R RelateMany 8 Access\_ MinPriceMTD R **BeforeProc** T **AvgPriceMTD** R Access\_ A

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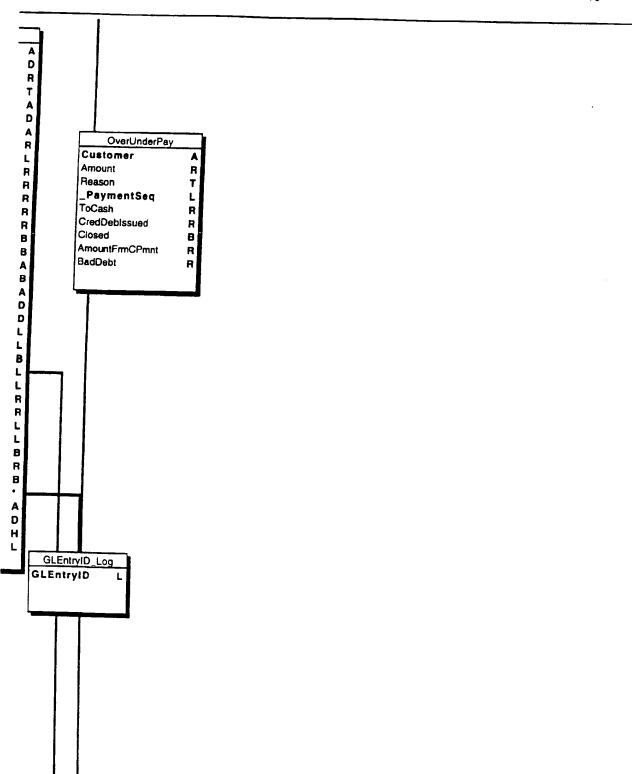


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163 Structure for Mega3.5.4

/64 Structure for Mega3.5.4



Structure for Mega3.5.4 47 Acruedinvoice GL\_EntryRef LDATRRRRR Entry\_Date D Partner\_Code Journal\_Entry Debit R Credit R PartnerBalance R Invoice\_Num A \_Sequence AcruedPayable LDLTR GL\_EntryRef ם Entry\_Date A Partner\_Code Journal\_Entry R Debit R Credit R PartnerBalance R RRLLALR Invoice\_Num Sequence BankState\_Reg Bank\_Statement StatementSeq AccountSeq A D R CheckNum StatementDate D DateCleared R BeginningBalanc Amount

EndinoBalance

المركز Structure for Mega3.5.4

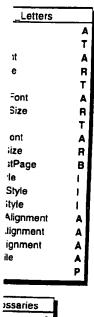
Structure for Mega3.5.4 48 Deposit В Checks Deposit\_Num Deposits R Reconciled В R DividendsEamed R To\_From A interestEarned R interestEarned В R FeesPaid R DividendsEamed В InterestPaid R InterestPaid В Reconciled В FeesPaid В ManualReconcile В Withdrawal 8 \_StatementSeq L ChckRegAmnt R В ElectronicTrans В L R L QuickChecks Bank Accounts BankActSeq AccountSeq Amount R Account Payee Account\_Num CheckDate D StartingBalance R PayableTo CurrentBalance R CheckRegSeq DefaultAct ₿ **BankAccount** LastStatement D CheckNum StartDate D Verified NextCheckNum L Void Account Type A \_GL\_Cash\_Act L \_NextTransNum \_BeginningBat R LastCheckNum RecurringFe Branch BankActSeq Bank\_Register Pos1 PostDays AccountSeq \_Pos1Type Fee Check\_Num \_Pos1Lead COASeq **TransactionDate** D \_Pos1Trail LastPostDate PaymentAmnt | R Pos2 Description Deposit В \_Pos2Type Frequency Deposit\_Num Pos2Lead ClearStatement В \_Pos2Trail То \_Pos3 Note \_Pos3Type \_ChRegSequence Pos3Lead Distribution \_Pos3Trall Adjustment В LogoLine1 ClearElectronic В LogoLine2 InterestEamed В LogoPict DividendsEamed В BankLine InterestPaid 8 BankIDLine FeesPaid В DateLine ApprovedAdj В Sig2Line Startincluded В Erata1Line Withdrawal В Erata2Line ElectronicTrans В Erata3Line DistrToDate R CheckNumLead0s **FullyDistribute** В MICRSpace1

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ノん) Structure for Mega3.5.4

Cuackianiinuidne	A g	_MICHOPACEZ	1 1
Balance	R	_MICRSpace3	1
DepositAmnt	R	UsePictCheck	В
TransactionTime	н	AmuntCharPad	A
DepositDate	D	Slq1Line	A
DepositTime	н	DepLogo	T
DepVerifyDate	D	_Pos4	À
DepVerifyTime	н	_Pos4Type	
PayableTo	Τ	_Pos4Lead	A
CashRecptSeq	L	_Pos4Trail	Ä
CashDisbSeq	L	Pos5	A
		_Pos5Type	i
		_Pos5Lead	A
		_Pos5Trail	A
		_MICRSpace4	1
		_MICRSpace5	1
		NextDepNum	L
		DepNumLead0s	- 1
		PrintDepHor	в

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A T on B

Bod\/ood=	
BadVendor	<u>s</u>
xx	В
xxx	В
xxxx	В
XXXXX	В
xxxxxxxx	В
XXXXXX	В

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/69 Structure for Mega3.5.4

51

ReuseMe NextNumber L 170 Structure for Mega3.5.4

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Structure for Mega3.5.4

Structure for Mega3.5.4

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55

GLBankRg_Split	-
BankRegSequence	L
GL_AccountSeq	L
Debit	R
Credit	R
Sort_	1
ActType	A
GL_Account	A
Editable	В
CashRcptSeq	L
Explanation	A
CashDisbSeq	L
<u> </u>	_

L A R L D A A

## What is claimed is:

1. A method of business-to-business transaction processing using a database and a database management system, comprising:

receiving user demand information electronically;

at least partially in response to receiving the user demand information electronically, automatically storing an order record in the database and maintaining the order record in the database throughout a life cycle of the order; and

during the life cycle of the order, multiple users each accessing the order record and processing the order to accomplish a respective one of multiple business functions, and creating records related to the order.

- 2. The method of Claim 1, wherein the life cycle of the order includes an expected period for at least one of reversal, service, and parts order.
- 3. The method of Claim 2, wherein reversal includes customer returns and correction of improperly fulfilled or mistaken orders.
  - 4. The method of Claim 1, or Claim 2 or Claim 3, further comprising: providing within the database management system at least one of a table switch function and a related table switch function, wherein:

the table switch function enables a user to freely view records of any of various tables except as otherwise prohibited by access authority defined by a supervisory user;

the related table switch function enables a user to freely view records of any of various tables related to a selected record, except as otherwise prohibited by access authority defined by a supervisory user.

- 5. The method of Claim 4, wherein the related switch function is used to display information to a user via the Web.
- 6. The method of any of the preceding claims, further comprising defining automated workflow processes for a plurality of business functions using the database and the database management system, wherein the workflow processes constrain user inputs and actions but allow use of at least one of the table switch function and the related table switch function.
- 7. The method of Claim 6, further comprising allowing a user with proper authority to access all tables containing transaction-relevant information.
- 8. The method of any of the preceding claims, further comprising providing a central table supporting multiple business functions, whereby changes made by one user performing one business function can be viewed immediately thereafter by other users performing other business functions.
- 9. The method of Claim 8, wherein the central table is an item detail table.
  - 10. The method of Claim 8, further comprising: users, in response to business events, entering information affecting financials into the database; and

posting general ledger entries in the database such that latency between entry of said information and posting of a corresponding general ledger entry is either negligible or not greater than a predetermined small time period.

- 11. The method of Claim 10, wherein the predetermined small time period is one day, allowing for the preparation of substantially real-time financial reports.
- 12. The method of any of the preceding claims, further comprising processing information stored within the database to provide functionality within a majority of the following categories: enterprise resource planning, sales force automation, supply chain management, purchasing automation and electronic commerce.
  - 13. The method of any of the preceding claims, further comprising:
    in response to receiving the user demand information electronically, automatically storing a quote record in the database;
    receiving further user demand information electronically;
    in response to receiving the further user demand information electronically, automatically converting a quote record to an order record.
- 14. The method of any of the preceding claims, wherein the database management system is Web-enabled, and at least one of said user demand information and said further user demand information is received via the Web.
- 15. The method of any of the preceding claims, further comprising a user retrieving a quote record that has not yet been converted into an order record, modifying the quote record, and updating the quote record.
- 16. The method of any of the preceding claims, further comprising a user retrieving an order or quote record, duplicating the order record as a quote record, modifying the quote record, and saving the quote record as a new quote record.

- 17. The method of any of the preceding claims further comprising allowing a supervisor to view quotes created by subordinates of that supervisor.
- 18. The method of any of the preceding claims, further comprising, for each of a plurality of users, storing within the database management system a plurality of favorite quotes of that user for ready duplication.
- 19. The method of Claim 18, further comprising allowing a user to change that user's favorite quotes and effecting the changes on-the-fly in real time.
- 20. The method of any of the preceding claims, further comprising eliciting user demand information by displaying to a user products approved for purchase by that user.
- 21. The method of any of the preceding claims, further comprising eliciting user demand information by displaying to a user a summary of products frequently purchased or recently purchased by that user.
- 22. The method of any of the preceding claims wherein the user demand information includes at least one of installation instructions and shipping instructions.
- 23. The method of Claim 22, further comprising automatically enforcing dependencies based on at least one of ship group and installation group.
  - 24. The method of any of the preceding claims, further comprising:
    automatically identifying quote records less likely to be converted
    into order records; and

communicating with users so as to increase the liklihood of the quote records being converted into order records.

- 25. The method of Claim 24, wherein communicating with users comprises automatically communicating with users via the Web.
- 26. The method of Claim 25, further comprising automatically communicating a promotional offer.
- 27. The method of any of the preceding claims, further comprising processing via the Web a post-sale transaction relating to a product previously sold, comprising the steps of:

a user communicating a request via the Web, causing a related record related to an existing order record to be stored; and processing the request using an automated workflow process.

- 28. The method of Claim 27, wherein the post-sale transaction is one of the following: return, service, and parts order.
- 29. The method of any of the preceding claims, wherein the existence of an open return request is automatically taken into account within a plurality of workflow processes.
- 30. The method of any of the preceding claims, further comprising automatically approving a return request in accordance with stored criteria and communicating approval to a user electronically.
- 31. The method of Claim 30, wherein the stored criteria are modified by a user having authority to do so.
- 32. The method of any of the previous claims, further comprising electronically communicating status information to a user.

- 33. The method of Claim 32, wherein the status information pertains to an order.
- 34. The method of Claim 32, wherein the status information is communicated upon receiving an electronic request at the time of request.
- 35. The method of Claim 32, wherein the status information is communicated upon the occurrence of a status change based upon a previous request.
- 36. The method of Claim 32, wherein the status information pertains to a post-sale transaction request.
- 37. The method of Claim 32, wherein the status information is detailed status information concerning payment or non-payment.
  - 38. The method of any of the preceding claims, further comprising: automatically classifying records of a given type into multiple classifications for workflow processing;

one or more users interacting with the relational database system to take a prescribed action with respect to multiple records having a particular classification.

- 39. The method of Claim 38, wherein the records of a given type are classified into multiple classifications based on experiential criteria.
- 40. The method of Claim 38, wherein a record may belong to a plurality of categories, the method further comprising sorting records in accordance with a hierarchy of categories such that a record belong to both a category higher in the hierarchy and a category lower in the hierarchy is sorted into a group of records belonging to the higher category.

- 41. The method of Claim 40, further comprising a user rearranging classifications within a hierarchy to effect a business purpose.
- 42. The method of Claim 38, further comprising the relational database system not allowing the one or more users to take at least some actions other than the prescribed action with respect to the records.
- 43. The method of Claim 42, further comprising a user with requisite authority to take an action not allowed for other users not having the requisite authority.
  - 44. The method of Claim 38, further comprising:

    a user interacting with the relational database system to change information within a record; and automatically reclassifying the record.
- 45. The method of any one of Claims 26-35 wherein the records of a given type are of one of the following types: customer invoices, vendor invoices, item sold and return merchandise authorization requests.
  - d6. The method of Claim 45, further comprising:

    classifying item sold records;

    forming a group of particular item sold records; and

    creating a vendor order including a vendor order item corresponding to the group of particular item sold records and representing one or more units.
  - The method of Claim 46, wherein forming a group comprises grouping and regrouping item sold records as many times as desired.

- 48. The method of Claim 46, wherein each vendor order item is related to at least one item sold record created in response to receiving directly from a user user demand information.
- 49. The method of Claim 48, wherein an item sold record represents one or more units, and an item detail record related to the item sold record is created for each unit.
  - 50. The method of Claim 49, further comprising:

    receiving one or more units of a vendor order item; and

    for each unit, changing an item detail record to indicate receipt of
    that unit.
- 51. The method of Claim 50, further comprising physically manipulating a unit in accordance with a workflow process defined within the database and changing an item detail record of the unit to reflect the physical manipulation.
- 52. The method of Claim 51, wherein physically manipulating the unit comprises installing the unit within a larger assembly.
- 53. The method of any of Claims 26-43 wherein classifying comprises identifying critical path items for fulfilling an order.
- 54. The method of any of Claims 26-44 wherein classifying is performed on the basis of at least a plurality of the following: item, availability, installation instructions, and shipping instructions.
- 55. The method of any of Claims 26-45 further comprising breaking down items into multiple tiers, each successive tier including component parts for items of a previous tier, and creating a record for each component part.

- 56. The method of Claim 55, wherein classifying is performed on the basis of availability within multiple tiers.
- 57. The method of Claim 56, wherein availability information within multiple tiers is obtained via the Web.
- 58. The method of Claim 56, further comprising communicating availability information to a customer and, if the customer desires, changing at least one of installation instructions and shipping instructions.
- 59. The method of Claim 55, further comprising ordering component parts from a vendor, receiving the component parts, and assemblying the component parts into an item.
- 60. The method of Claim 55, further comprising identifying suppliers for the component parts of at least one tier.
- 61. The method of Claim 60, further comprising ordering an item from a vendor and automatically communicating demand information to at least one other supplier of a component part of the item via the Web.
- 62. The method of Claim 61, wherein communicating via the Web is accomplished by one of Web push methods and Web pull methods.
- 63. The method of any of the preceding claims further comprising using the data in the database to perform systematic quantitative evaluation of at least one of employee performance, vendor performance and customer performance.

- 64. The method of Claim 63, further comprising at least one of an employee, a vendor and a customer remotely accessing the database and viewing its own quantitative performance data.
- 65. The method of Claim 63, wherein said evaluation is based entirely upon data in the database.
- 66. The method of Claim 63, wherein said evaluation takes into account reversals of orders.

- 67. The method of any of the preceding claims, wherein the user demand information includes, at least implicitly, vendor identification information, further comprising automatically transmitting corresponding order information to a designated vendor for fulfillment of the order.
- 68. The method of Claim 67, further comprising automatically transmitting N-tier order information to multiple corresponding vendors.
  - 69. The method of Claim 1, further comprising:

displaying to a Web user multiple electronic commerce course-ofdealing options including at least one option relating to products and at least one option relating to payments;

the Web user setting at least one electronic commerce course-ofdealing option in accordance with a choice of the user; and

the electronic commerce system effectuating the choice of the Web user for each of multiple subsequent electronic commerce transactions.

- 70. The method of Claim 69, further comprising effectuating the choice of the Web user on-the-fly in real time.
- 71. The method of Claim 69, wherein displaying comprises displaying a multiplicity of electronic commerce course-of-dealing options in tabular form.
- 72. The method of Claim 69, wherein course-of-dealing information is read during transaction processing of an electronic commerce transaction.
  - 73. The method of Claim 69, further comprising:
    setting authorities of multiple Web users; and
    allowing a Web user to set an electronic commerce course-of-dealing option only if the Web user is authorized to do so.

- 74. The method of Claim 73, further comprising effectuating the settings on-the-fly in real time.
- 75. The method of any of claims 61-64, wherein a second, working-level electronic commerce course-of-dealing option relates to the authority of a Web user to perform a predetermined action authorized in accordance with a first, enterprise-level electronic commerce course-of-dealing option.

- 76. The method of any of the foregoing claims, further comprising making remotely accessible to a user status information pertaining to each of a majority of the following product life cycle stages: purchasing, receiving, shipping, installation/assembly, billing, and returns/service.
- 77. The method of any of the foregoing claims, further comprising a user executing a dynamic workflow process not explicitly provided for.
- 78. The method of any of the foregoing claims, further comprising an external user remotely setting or changing authority of one or more users.
- 79. The method of Claim 78, further comprising the system immediately effecting the changes in authority.

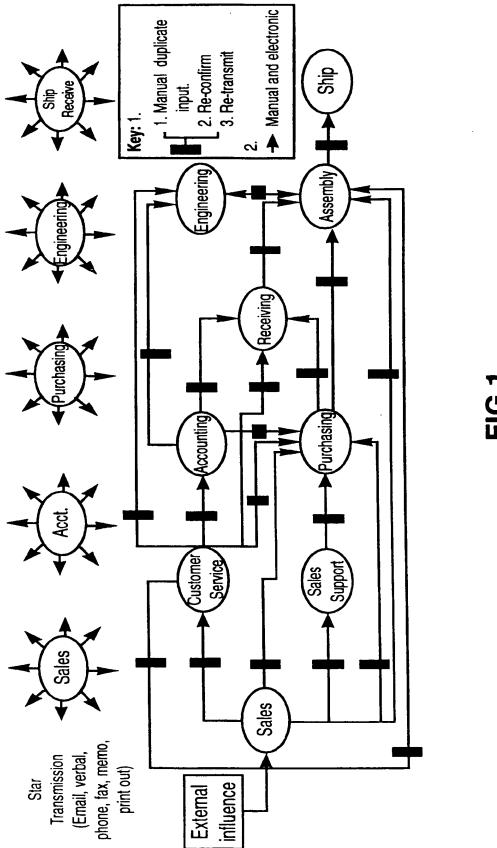


FIG.1

Fig. 2

Fig. 2A	Fig. 2B	Fig. 2C



Employee/Vendor performance

Customer satisfaction

External influence and view (Vendor, customer, employee, new customer account)

- Electronic means (Web business to business commerce, satelite, EDI to mainframe, infranet internal corporate business process), remote terminal direct dial.
- 2. Telecommunication means E-mail, phone, fax.
- 3. Physical means letter, physical visit.

External influence

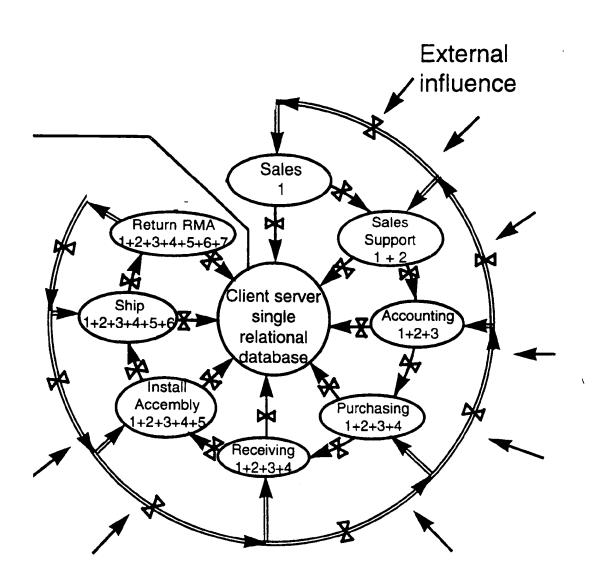


FIG. 2B

- X 1. Secured and authority check.
  - 2. Best practice, possible outcome, expected input parameters affecting downstream.
  - 3. Process is reversible until posted.
  - 4. Track discrepancy and allow improvement from feedback.
  - 5. Trigger one event to allow other event happens.

## External influence

Key

Electronic, non-manual original process

Electronic, non-manual reversible process

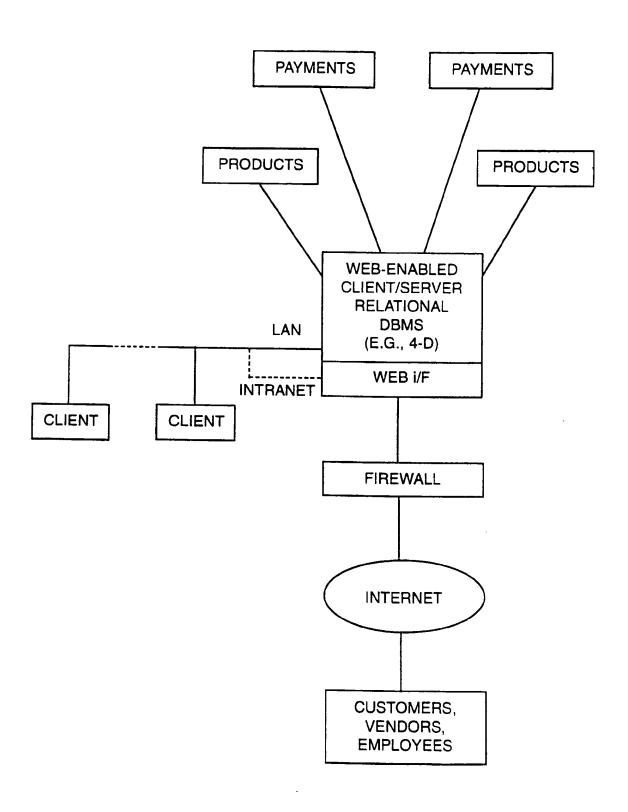


FIG.3

Reports Tracking ReulinsRepair

Products - New Quote

Search Options: The Product listing from all Mfr. by product category



Product listing from single Mfr. by product category



Product listing by Mfr. name or description, or Part#



Product listing from single Mfr. by description, or Part#



Previous purchase history (Core Products)



Approved products list (Company catalog) - APL

Search by Product ID (Pre-configured Products)

9



Previous quotes history



PID Maintenance APL Maintenance



















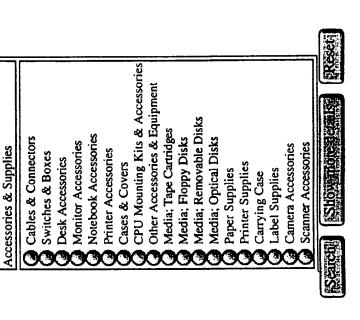


1. Products - Search by Groups and Categories

Accessories & Supplies	Accessories & Computers/Terminals Supplies	Education	Enhancement Products	Pluput Devices
Memory	Multifunctional Devices	Network & Communications H/W	Power Equipment	Premise Wiring & Rack Systems
Printed Information	Printers & Plotters	Services & Agreements	Software, Applications	Software, Communications
Systems	Storage Devices/Enclosures	Telephony	Wideo Adapters & Displays	
		अणि ग्रन्थ हिस्सी	Meses.	

FIG. 5

Products - Search by Groups and Categories \*Accountings Reports <u>गुक्राण्ड</u>



ACCOUNTINE | LIES (III) Home

Products - Search by Groups and Categories

Accessories & Supplies/Cables & Connectors
Printer
Modem & Fax
Display & Terminal
Drive
UPS
Security Device
Wireless Accessories
Scanner
Other

FIG. 8

FIG. 8 A

FIG. 8 B

Searching for products selected. If this takes too long, narrow down your search please. 234 records found. Preparing data for display.

श्चायद्वरमाञ्ज





Home

Product List

Displaying from record 1of 234, skipping duplicate items. Please check the item(s) you wish to select

Your search criteria for this list was: Printer

Check	Manufacturer	Description	Media	Platform	Media Platform Part Number Price	Price
	TEKTRONIX - PRINTERS	30FT HYPER CABLE (PAR CABLE) IISD/SDX			012-1428-01	99.00
	TEKTRONIX - PRINTERS	CABLE ASSEMBLY INTERCONNE DB9XDB25 IISD/SDX			012-1313-00	50.00
<b>32</b>	TEKTRONIX - SUPPLIES	PAR TERMINATOR C36M C36F			011-0156-00	39.00
13	TEKTRONIX - PRINTERS	CABLE INTERCONNECT DB25 XDB25 IISD/DDX			012-1312-00	50.00
3	TEKTRONIX - PRINTERS	CABLE INTERCONNECT 75 FT HYPER CABLE COLORQUICK			012-1430-00	109.00
羅	TEKTRONIX - PRINTERS	CABLE INTERCONNECT 50 FOOT HYPER CABLE COLORQUI			012-1429-00	87.00

FIG. 8 A

题	TEKTRONIX - PRINTERS	CABLE INTERCONNECT COLOR QUICK		012-1302-00	50.00	
整	TEKTRONIX - PRINTERS	CABLE INTERCONNECT COLOR QUICK		012-1301-00	61.00	
璽	TEKTRONIX - PRINTERS	SCSI CABLE 50PIN TO 25PIN		012-1299-00	55.00	
3	TEKTRONIX - PRINTERS	SCSI CABLE		012-1465-00	61.00	
ximum	aximum display lines per page:	ладе: [10	<b> </b>  ^**:			

May

रिट्या	Search Again.
SHOW Selected thems (IR	Bigliouni fransi
Show	Hof Hems

To narrow down your search within the current selection, click the button below.

FIG. 8 B

TIP OF THE

Product Shopping

Please check Quantity for each product. Zero quantity will cancel that item. Current Working Quote: New Quote

00.99 Manufacturer Part# Unit Price 012-1428-01 Manufacturer TEKTRONIX -PRINTERS 30FT HYPER CABLE (PAR CABLE) IISD/SDX Description

Quantity

Please select an action from the menu below and click Take Action button

Create Quote with above item(s)

Empty Basket

Show last Products List Search for more items

Products - Single manufacturer input for further search

Manufacturer:

If you wish to select from manufacturers list, click on the first letter of the manufacturer.

HOB OFF	Droducte - Search by manufacturer description and/or past number
<b>Accommings</b>	intion and/
Repairs.	mer deser
TE TENCHOLOGIC	v manufact
। श्रद्धामाह्यस्टिष्ठ	Search h
Produck	Droducte

roducts - Search by manufacturer, description and/or part nu	ore of the following information.			The second secon	अन्यायाङ्क्यामिङ्गान्नामा वर्तमान्नाङ प्रिवास नामामिङ्स	
roducts - Search by manufac	Please input one or more of the following information.	Manufacturer:	Item Description:	Manufacturer Part #:	भारता हुन्याच्या विश्वासम्बद्धाः	eniss)

Produces

5. Products - Search the previously purchased products (Core Products)

ollowing information.				ऽद्वतः तामाता विकास का त्या त्या का का तामा विकास विकास विकास का तामा विकास विकास विकास विकास विकास विकास विकास	10		(SSanton) (Reseat	Show all consultable
Please input one or more of the following information.	Manufacturer:	Description:	Manufacturer Part #:		Maximum lines per page:	Core products From: 1045		·

FIG. 13

FIG. 13 A

FIG. 13 B

LOGIOTE Home

## Product List

Displaying from record 1 of 72, skipping duplicate items. Please check the item(s) you wish to select

Your search criteria for this list was: compaq

Check	Check Manufacturer	Description	Part Number	Price	Last PO Number	Date Last Purchase Purchase	Purchase Count
<b>53</b>	compaq	COMPAQ TOWER TO RACK CONVERSION KIT	149068-001	419.00		86/08/6	2
2	compaq	256MB BUFFERED EDO DIMM MEMORY KIT	149026-B21	1,343.00		9/21/98	20
W.	compaq	COMPAQ PROLIANT 850R 6/200H: MODEL1 (HP MODEL)	167200-001	2,532.00	爨	86/6/6	3
H	beduoo	COMPAQ RACK 7122	163747-001	1,616.00		86/9/8	
<b>3</b>	COMPAQ	COMPAQ CPU TO SWITCHBOX CABLES, 20FT	165638-002	70.00		86/1//	13

FIG. 13 A

27	27	. 10		38
9/18/98	86/81/6	7/1/98	86/30/98	9/18/98
195.00	1,577.00	2,049.00	542.00	68.00
165652-001	165753-001	139142-001	169286-001	165638-001
SIDEWALL KIT (LEFT/RIGHT) 7142 42U COMPAQ RACK	RACK 7142 42U (7FT) W/DOOR	SIMM, 32 MB, FOR PROLIANT MODELS UP TO 4500(SPARE PART)	REDUNDANT POWER SUPPLY (6500 R), HOT PLUGGABLE	RM 9 FOOT CPU TO SWITCH CABLE KIT (backorder on part# 165638-002 20 ft cable)
COMPAQ - SERVERS	COMPAQ - SERVERS	СОМРАО	COMPAQ	СОМРАО
围	H	翘	पूज केला केला	F

Test to female (Search Again) Next set of tiems. Maximum display lines per page: | 10

To narrow down your search within the current selection, click the button below.

FIG. 13 B

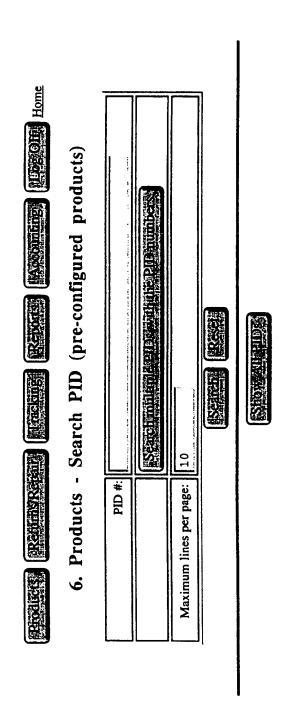


FIG. 14



	<u> </u>	Find PIDs	š
Select	PID Number	PID Date	PID Description
	29902	8/18/98	test-08/18/98-2
<u></u>	29968	8/22/98	webtest-08/25/98-01
-	29966	8/25/98	SYSTEST-08/25/98-01
	29878	8/13/98	TESTDELLAGAIN
X	29879	8/13/98	testdelloncemore
	29886	8/14/98	TEST08/14
	29961	8/24/98	TEST 08/24/98-1
146	30042	86/8/6	SCE-PID-COMPAQ
**	30044	9/3/98	SCE-PID-DELL-L
	30046	9/3/98	SCE-PID-DELL-D
	Salida Salesies (Salis)	SELECTION SERVICES	

FIG. 16

FIG. 16 A

FIG. 16 B

Product List

Displaying 1 PID(s).  Place check the item(s) you wish to select	

			Ī		,	
Check	Manufacturer	Description	Media	Media Platform	Part Number	Price
	PID	SCE-PID-COMPAQ			30042	29,067.94
	compad	FIBER CHANNEL ARRAY KIT			223100-001	
	beduoo	FIBER CHANNEL HOST CONTROLLER KIT/P			223180-B21	
	compaq	FIBER CHANNEL STORAGE HUB 7			234453-001	
	COMPAQ SERVERS	512MB KIT (4X128MB DIMMS) 60NS EDO ECC PROLIANT			241 <i>7</i> 73-B21	
	compaq	PROLIANT 7000 6/200-512: MODEL 1S-128 (128 MB)			273350-005	
	COMPAQ -	SMART-2DH PCI 2CH ARRAY CONTROLLER W/16MB CACHE			295242-B21	

FIG. 16 A

	COMPAQ SERVERS	PROLIANT STORAGE SYS /U! RM SINGLE BUS ULTRAWIDE	304100-B21	
	COMPAQ	MULTISCAN V55 15IN 13.7VIS 3.28MM 10X7 COLMON	308006-001	
Махітит д	Maximum display lines per page: 10	10		
		Show Selected Hears, [Reserved]		
		More tems (Previous supplicants) (Seatth Again		

FIG. 16 B

comming) (1608-Chr. Home	Products - Search the customer approved products list (APL)
	proved
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and was	custon
	the
eneraly Report	Search
3	ı So
Namous N	6. Products
	6.

o. 110ddes - Start	o. Houncis - Scarch inc customer approved products his (ALL)
Please input one or more of the following information.	following information.
Manufacturer.	
Description:	
Manufacturer Part #:	
	्रिक्टान्सम्प्रातातात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रकात्त्रक
Maximum lines per page:	10

d click Take Acti	( Table Action			
Please select an action below and click Take Acti	Search Company APL	Search Personal APL	Show all Company APL	Show all Personal APL

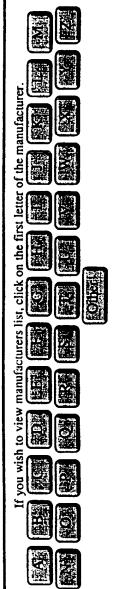


FIG. 17

Products - Quotes Look Up

Find Quotes

FIG. 20

FIG. 20 A

FIG. 20 B

Toge off Home
ROME
Supering
Renns/Repair
Products

Mcga Network Quote Quote Number: Q98-30413 785 Palomar Avenue, Sunnyvale, CA 94086 Quote Date: 11/19/98 Phone: (408) 730-9138 Fax:(408) 720-1293

Quote For: SOUTHERN CALIFORNIA EDISON E1028903-000000001- PRN: 107400

P0:

Sales Person	Ship Via			Terms		FOB
Charles Wong	्राक्षा होता है। इस इस इस क्षेत्र के प्रतिकार		[			
Item#	Description	MfctPart No.	Installed	Unit Price	Qty.	Extended Price
F	KIT, SPS-GUIDE, MAINT/SVCS	188485-001	z	45.00	E	45.00

New notes:	П	
		[Email Notifications]
		A training and the second seco

FIG. 20 A

Please select an action and click Take Action button.

Add/Change/Remove products in this quote Show last Search results of Products List Arrange the order of the quote items

Save this guote for future reference I am ready to order Duplicate this guote into a new guote



Fig. 20 B

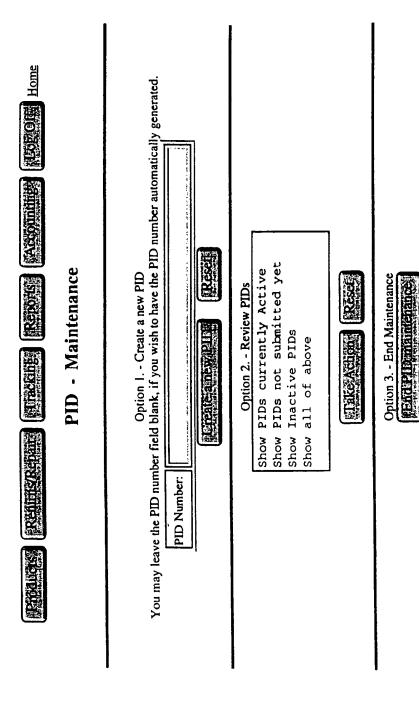


FIG. 22

FIG. 22 A

FIG. 22 B



## ID List

Please click on the PID number if you wish to view details.

PID Number	Revision	Date	PID Description	PID Status
z06623	0	8/18/98	test-08/18/98-2	ACTIVE and in production
899662	0	8/25/98	webtest-08/25/98-01	ACTIVE and in production
39662	0	8/22/98	SYSTEST-08/25/98-01	ACTIVE and in production
15882	0	8/12/98	test1	INACTIVE
\$29862\$	0	8/13/98	TESTDELL	INACTIVE
15986E	-	8/13/98	TESTDELL	INACTIVE
F53878	0	8/13/98	TESTDELLAGAIN	ACTIVE and in production
[678 <b>67</b> 3]	0	8/13/98	testdelloncemore	ACTIVE and in production
[59 (867)]	0	8/14/98	TEST08/14	INACTIVE
98860	-	8/14/98	TEST08/14	ACTIVE and in production

FIG. 22 /

29961	0	8/24/98	8/24/98 TEST 08/24/98-1	ACTIVE and in production
3002	0	86/8/6	SCE-PID-COMPAQ	ACTIVE and in production
300kg	0	9/3/98	SCE-PID-DELL-L	ACTIVE and in production
E DO PER	0	86/2/6	9/3/98 SCE-PID-DELL-D	ACTIVE and in production

FIG. 22 B

APL Maintenance

Option 1. - Please input one Part number below and click Add or Delete button.

Company APL - Maintenance

Manufacturer Part Number:

Option 2. - Please select one option below and click Take action button.

Search for Products to add to APL

Delete items in list End APL maintenance

- Sort by Description

Show all

Show all - Sort by Part Number Show all - Sort by Manufacturer Show all - Sort by Price

If you do not have the above information available, please click below. Option 3.

Search

Customer RFQ #:

Customer PRN #:

Vore Searth Collisions

FIG. 26

FIG. 26 A

FIG. 26 B

erangan (preprinsprepare) (presente) (prepare) (prepare) (presenting) (presenting)

Return Product Search

click on the first letter of the manufacturer.) Solecononthan with Sales and with the sales Sort records by: 🔘 Manufacturer 🕒 Date 🕓 PO# Option 1. Please input one or more of the following information. Search (Reself Item(s) purchased between: and: Manufacturer's part #: Manufacturer's Name:

FIG. 26 A

RMA look up. RMAs between: A STAN STAN Option 2.

Sort records by: (3) Manufacturer (4) Date (7) PO#

FIG. 26 B

FIG. 27

FIG. 27 A

FIG. 27 B

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2
<u>U</u>
正

# West (Restring Repairs) (Tablishes) (Reports) (Recomming) (Logishes)

Find RMAs

Case Number	RMA Number	Date	Customer PO Number	Manufacturer	Description	Part Number	RMA Qty	RMA RMA Qty Amount
Temp27441-1	RESIDINGER	96/2/98	(E) 1000000000000000000000000000000000000	WESTERN DIGITAL	2.10GB EIDE UDMA 3.5LP 11MS 5400RPM CAVLAR w/SW, Manuals	AC12100UDMA	-	175.00
Temp27329-1	PREST TOSA CIRCLE	86/8/9	(HE)1000000000000000000000000000000000000	LABTEC	LCS-150 STEREO SPK BGE 1.35W AMPL VOL	LCS-150	21	315.00
Temp27663-1	FR-312033CERI	86/2/9	TENOS SOCIETOS CONTROL DE LA C	SEAGATE	BARRACUDA 4.55GB ULTRA WSCSI SCA HD 3.5LP 8MS	ST34572WC		567.00
Temp27759-1	R312284 GR	86/6/9	[FF1028905.000.00000001[20]	MICROTEST	DISCVIEW PRO UPG VERSION 6 KIT	9005-20	_	359.00

Temp27824-1	(RESISOTS GR	6/12/98	(FEID02890E-00000000000000000000000000000000000	ADAPTEC - FSCSIZ CONTROLLER BMHA MASTE	32BIT EISA FSCS12 BMHA MASTER KIT	AHA-2742AT KIT	_	285.00
Temp27353-1	(RESISTAFICK)	6/22/98	EE1028903-00000000EV	DIAMOND MULTIMEDIA	STEALTH II MODEL S220 4MB PCI SGRAM BD	STIIS220-XL1	_	94.00
Temp27891-1	(R. 2440.35 (R. 29)	6/29/98	ETITO 8903-10 COOK OF LO	CAVIAR 4.0GB INT EIDE HD DIGITAL CORP 3.5LP 11.5MS 5200RPM RTL		4000RTL	_	215.00
Tcmp27290-2	R=314168GR	6/30/98	EE (1028905: 0010000000 ED:	COREL LICENSING	CLP XARA MOST LIC ML	LPCLPC-CX10	-	160.00
Temp27518-1	REGENERA	86/1/2	F21028963 (TCCCCCCO) = 0	DELL	IDE CD ROM internal drive	88845	2	236.00

FIG. 27 B

FIG. 28

FIG. 28 A

FIG. 28 B

SOUTHERN CALIFORNIA EDISON	Customer: SOUTHERN CALIFORNIA EDISON Customer Fax: (626) 302-7113
Rosemead, CA 91770 Att: ACCOUNTS PAYABLE	Buyer: dee dee Buyer Fax: (408) xxx-
Ship To:	End user: Ed Chavez End user Fax: (626) 302-7565
MEGA NETWORK, INC. 785 Palomar Avenue Sunnyvale, CA 94086	Purchase Order #: E1028903-00000001-0 Purchase Date: 5/11/98
	Return Instructions The below listed items have been authorized for
RMA Number: R-311112CR	return to Mega Network for exchange, repair or credit. If possible return the item in it's original container. Fold this form along the dotted lines and attach it to the outside of the shipping container so that the Mega
THIS RMA EXPIRES 6/9/98	Network address and KMA number are clearly visible. In this manner this form may be used as a shipping label.
	** Items without the RMA number clearly visible on the shipping container will be refused by the Mega Network Receiving Dept.
	** Merchandise returned for exchange or credit not in their original sealed and undamaged container may be subject to a 15% reconditioning and testing fee.

FIG. 28 A

FIG. 28 B

1	靣	_	_
	sc II		
	M		
	Serial Number Misc ID		
	Serial		
		2.10GB EIDE UDMA 3.5LP 11MS 5400RPM CAVIAR W/SW,	
		CAVIA	
		<b>HOORPM</b>	
		11MS 54	
		3.5LP	
		UDMA	
	Description	B EIDE	als
	Desci	2.10G	Manu



Tracking

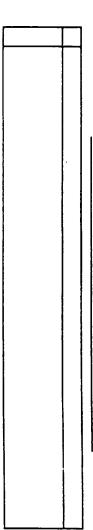
Please select type of tracking information that you need: Option 1.

- Sales Order Status
- Return Product & Service Part Status •
- Product Purchase History
- Return & Service History ω 4 ② ②





Please use the following area to request any special report which is not included above. Option 2. Please use the follow And specify your e-Mail or Fax.



E-M il joon@meganetwork.com

FAX # (408) 720-1293

PHONE# (408) 730-9138 x804

Tale Actions | Reset

| Produces (Return Repair) (Tradence) (Repairs) (National (Protonitude) (Protonitude) | Tracking - Sales Order Status | Option 1. Please input any one of the following fields: | Customer PO# RFQ# Customer PRN# PRN# Invoice# Tag # Tag # | First Actions (Recent | Option 2. If you do not have the above information, please input one or more of the following information. | Manufacturer | Manufacturer Part# | Date purchased between: [Iselectationthing   Iselectation   Iselectation   Iselective in   Iselective   Isele |  | Sort By: Manufacturer Date PO# | MIGROSTANTINE PROPERTY (PROPERTY OF THE PROPERTY |---|-------------------------------|---|---|-----------------------|--|--------------|--------------------|--|--|--------------------------------|--|
|---|-------------------------------|---|---|-----------------------|--|--------------|--------------------|--|--|--------------------------------|--|

FIG. 31

FIG. 31 A
FIG. 31 B
FIG. 31 C
FIG. 31 D

Tracking Searching database for requested records.
25 records found. Preparing data for display.

Name Fart#	Shipped Name Part# Description	urer Man	Description	n.	Ordered Quantity	Shipped to Date	Notes
E102890390000000112101	COMPAQ COMPUTER 294013-001 CORP. (SERVERS)	Q TER 294013-001 RS)	REMOTE INSIGHT/PCI (I MODEM)	AN+	2	ĩ	
EEE 028973 0000000111028	compaq   317756-001	317756-001	SPS-MEM MOD 128MB, SDRAN		8	<b>∞</b>	
COMPAQ   COMPUTER   COMPAQ COMPUTER 294013-001 CORP. (SERVERS)	лек 294013-001 яs)	REMOTE INSIGHT/PCI (LA MODEM)	+ Z	1			
EE1028903.0000001172361   COMPAQ- 295242-B21   CONTROLLER   W/16MB CACHE	COMPAQ - 295242-B21	295242-B21	SMART-2DH PCI 2CH ARRAY CONTROLLER W/16MB CACHE		1		
E1028903=000000001E1236   Oct 15,   COMPAQ- 313706-B21   W/ULTRA 1.0IN   SCRVERS   SCS1-3 7200RPM   HD	COMPAQ - 313706-B21	313706-B21	9.1GB PLUGGABLI W/ULTRA 1.0IN SCSI-3 7200RPM HD	ш	\$	5	

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$\bot$					4 3GR PI LIGGARIE			
	F1028903700000000117236	Oct 15, 1998	COMPAQ- SERVERS	272577-001	W/ULTRA 1.0IN 7200RPM SCSI-3 HD	2	ر،	
الشتا	NE102890319000000001111236	Oct 15, 1998	COMPAQ SERVERS	169470-B21	6/200 512K PROC OPT KIT PROLIANT 6500 7000	3	3	
	E11028903-000000001F123.65	Oct 21, 1998	COMPAQ SERVERS	241700-001	PROLIANT 6500 6/200 128MB M1-512K NOHD RM FS 16XCD	1	1	
	E1028903:000000001:11235	Oct 21. 1998	сотрад	188491-001	KIT, SPS-GUIDE, MAIN&SVC FOR TOWER PROLIANT 4500		_	
	HELO28903-0000000001-1248-	Oct 21, 1998	COMPAQ	169467-001	RACK TO TOWER CONVERSION KIT FOR PROLIANT 6500	7	7	
ا ت	E1028903-00000000111248	Oct 21. 1998	COMPAQ COMPUTER CORP. (SERVERS)	294013-001	REMOTE INSIGHT/PCI (LAN + MODEM)	5	5	
احتت	E1028903-00000000E1048	Oct 21, 1998	сотрад	143315-B21	COMAPQ MOUSE OPAL	20	20	
التتاا	E4028963-000000001=1048	Oct 21, 1998	сотрад	242521-B21	35/10GB EXT DLT TAPE DRIVE SCS13 W/CABLE	4	<b>†</b> 7	
	E) 028903-00000000[51248]	Oct 28, 1998	COMPAQ	169467-001	RACK TO TOWER CONVERSION KIT FOR PROLIANT 6500	33	33	
1								

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31
<u>ა</u>

E4028903-00000000	28	Oct 21, 1998	сомрад	294343-001	ENHANCED KEYBOARD OPAL	40	40		
E1028908 00000000 [21938]   Oct 21,	Oct 21, 1998		COMPAQ	308006-001	MULTISCAN VSS 1SIN 13.7VIS .28MM 10X7 COLMON	44	44		
E402890320000000012122483   Oct 21.	Oct 21, 1998		сотрас	241772-B21	256MB DIM KIT(4X64MB/60NS BFRD EDO DIMM)F/PROLJANT 6000 SERIES	L 40	40		
(E10289032000000001112481)   0ct 21.	Oct 21. 1998		СОМРАО	241771-B21	128 MEMORY EXPANSION KIT (4X32 DIMMS)	40	40		
ENOZBO320000000001248	Oct 21, 1998		compaq	295643-B21	SMART ARRAY 3200 CONTROLLER	44	44		
Customer PO# Shipped	Date Shippe	T	Manufacturer Manufacturer Name Part#	Manufacturer Part#	Description Q	Ordered Squantity t	Oty Shipped to Date	Notes	
EE028963-000000001E102481   Oct 21.	Oct 21, 1998		COMPAQ - SERVERS	313706-B21	9.1GB PLUGGABLE W/ULTRA 1.0IN SCSI-3 7200RPM HD		280		***************************************

FIG. 31 D

If you do not have any of the above information, please click below. Option 2.

Weight Seathful Options

Tracking - Return product & Service Part Status

Searching database for requested records.

3 records found. Preparing data for display.

Status			
		10	-
RMA Qty Qty Recvd		10	1
RMA Qty	_	10	
Description	VIRTUAL JETPRINTER SUN SOLARIS CD-R	ZIP PLUS 100MB PPT FOR PC OR MAC W/ AUTODETECT	PROLIANT 6500 6200 128MB M1-512K NOHD RM FS 16XCD
Part#	16A0194	10660	PROLLAN 6500 6/20 128MB 128MB M1-512K NOHD RJ 16XCD
Manufacturer	LEXMARK INTERNATIONA	IOMEGA	<b>COMPA</b> Q SERVERS
Invoice#	NEKON.		
PO#	10 10 000000 1 1 2058 2011 EB		112800000000000000000000000000000000000
RMA Date	Sep 21, 1998	Sep 14, 1998	Sep 8, 1998
RMA#	RESIDSSROR	IN SUPERMER	Sep 8, 1998
Check	X.	靈	10 m





& Tracking #

Get Freight Carrier Ship to Address Do a New Search



Tracking - RMA Status

Get Freight Carrier & Tracking #

VIRTUAL JETPRINTER SUN SOLARIS CD.R. PO# E1028903-00000001-0 RMA type for this item is Credit

ZIP PLUS 100MB PPT FOR PC OR MAC W/ AUTODETECT. PO# E1028903-00000001-1 RMA type for this item is Credit

PROLIANT 6500 6/200 128MB M1-512K NOHD RM FS 16XCD- PO# E1028903-00000001-1 RMA type for this item is Credit

FIG. 35

FIG. 35 A
FIG. 35 B
FIG. 35 C
FIG. 35 D

FIG. 35 A

## Tracking - Product Purchase History

Searching database. If this takes too long, please narrow down your search. Search has completed. 18 records found.

Qty	20	20	SS	8	20
Description	MOUSE MSE SER &PS/2	Performance 104 Key Keyboard for Windows 95. Customer Install	365-0366 INTEGRATION FEE	365-0257 DELL PLUS ROUTIN SKU	DELLPLUS SCE CONSIGNED WINDOWS 95 IMAGE FOR THE LATITUDE CP, FACTORY INSTALLED
Part#	36637-41	310-0039	365-0366	365-0257	360-7371
Manufacturer	DELL	DELL	DELL	DELL	DELL
Invoice Number		Y 75/41	<b>FA98A</b>	Section 1	
PO#	THE STATE OF SOCIOLOGICAL STATES	10000000000000000000000000000000000000	100000000000000000000000000000000000000	15/1028902=1000000001=15511	113-144-100000000 11008-0019-11
Date Shipped	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5,
Date Ordered	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998

_				
જ	82	82	20	20
360-5087 DP CONSIGNED LABEL SCE	DELL PLUS INFO SKU MANUAL SFTWARE INSTALLATION	360-3527 INFO, PRINT LABEL LARGE	Next Business Day, Parts Delivery Service, Years 2 & 3 Included	Selectcare, Initial Year, Next Business Day On-Site Service Contract, BSC*
360-5087	360-4801	360-3527	900-5112	900-1950
DELL	DELL	DELL	регг	TIBO
	100 m			1607
	(IECO 8500.000.000850)	(FE11728902:0000000001:E201E)	[EIIPSSON DOOD OO TO TO TO	(FEIQ28903=100000000000000000000000000000000000
Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998
Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998

Qty	8	20	20	98	50	20	જ	∞	
Description	WIN95, W/CD all Latitude CP Factory Install	6.4 GB HD, 12.5MM, LATITUDE CP FACTORY INSTALL	20X CD ROM, INTERNAL/EXTERNAL LATITUDE CP FACTORY INSTALL	64MB, IDIMM, EDO. LATITUDE CP FACTORY INSTALLED	Advanced Port Replicator with Monitor Stand, Lat, CP, Factory Installed	No Modem For All Dell Notebook	LATITUDE CP. M233ST, 12.1" SVGA, TFT, FACTOR Y INSTALLED	SPS-MEM MOD, 128MB, SDRAM	
Part#	420-0541	340-2166	313-0236	311-0342	310-4552	310-3043	220-0386	317756-001	
Manufacturer	DELL	DELL	DELL	DELL	DELL	DELL	DELL	compaq	
Invoice Number		W. V. Co.			THE COME				
PO#	[JE1028908.000000001=JE501]	(TENDERSONE GOOGLEGENING)	E110289031-300000001-10-2012	DEMOSBOGE GOOD OF THE	EL 1028903=1700000001   EL 1028903   EL		EE 028908-0000000   EE 02890   EE	(B1028403-000000000112281)	
Date Shipped	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	
Date Ordered	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 5, 1998	Oct 2, 1998	

FIG. 35 C

Totals from Oct 4, 1998 to Oct 5, 1998

Total Number of POs: 2

Total Amount of Purchase: \$161,840.00

Total Number of Items Purchased: 858

Capatri (Transmis)

Cos Off. Home

FIG. 35 D



Tracking - Product Return History

Please select month, day, year of start and end dates.

Purchase history between: Selectinoniff | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | Selection | and:

Sort By: 🕜 Manufacturer 🚷 Manufacturer Part# Buyer ₩O4 Invoice# Date

FIG. 37

FIG. 37 A

FIG. 37 B

Home

65/435

## Tracking - Product Return History MERCHIE ||Returns/Repair|

Searching database for requested records.
10 records found. Preparing data for display.

RMA#	Date	Manufacturer	Part#	Description	RMA Qty	PO#	Invoice#	Buyer
[R-30925][CR]	Apr 30, 1998	HP JETDIRECT	J3111A#ABA	JETDIRECT 600N INT ETH COMBO PRINSRVR	_	E1028903-0000000000		XXXX
FR-309327CFK	Apr 30, 1998	HP SUPPLY	C4287A	HP 4MB FLASH DIMM FOR LJ4000 & LJ5000 PRINTERS	S	FEI 02890SHOOOOOOOFFEE		XXXX
[R\$90][54GR]	Арг 28, 1998	IBM - CONNECTIVITY	72H3482	TURBO TR 16/4 ISA ADAPTER TYPE1 TYPE3	-	10-100-00300 3063701E1		XXXX
R-307017GR	Apr 28, 1998	BELKIN COMPONENTS	F2N028-06-GLD	GOLD VGA MON REPLACEMENT GOLD 6 FT	-			XXXX
WR-30691666R	Apr 28. 1998	BELKIN COMPONENTS	F2N028-06-GLD	F2N028-06-GLD REPLACEMENT GOLD 6 FT	4	(F) 1028903-1000000001110		XX

FIG. 37 A

XXXX	XXXX	ANITA	ANITA	xxxx
E1628903-00000000000000000000000000000000000	1911028900000000000000000000000000000000	031900000000000000000000000000000000000	16-100000000000000000000000000000000000	Einzsenangooonen
∞	100	_	_	_
AT/PS2 KYBD CONVRT	ETHERLINK XL ETH PCI RJ45 NIC	DESKIET 890CXI COL INKJETPR 9PPM 600DPI	SCSI PERIPH CABLE DBSOM/M 6 FT	ACCESS DEV KIT V7.0 CD W95
F2N017	3C900-TPO	C5876A#ABA	F2N966-06	001-756V700
BELKIN COMPONENTS	3COM CLIENT ACCESS	HP DESK	BELKIN	MICROSOFT
Apr 28. 1998	Apr 28, 1998	Apr 23. 1998	Apr 23, 1998	Apr 13, 1998
K-3068BS/@R	R:306684@Ru	R-306478XSM		(R=305814/GR)

Totals from Apr 1, 1998 to May 1, 1998 Total Number of Returns: 10

Total Amount of Returns: \$13,010.00

Total Number of Items Returned: 123

FIG. 37 B



































,68/435

FIG. 39

FIG. 3	39 A
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FIG. 39 B

FIG. 39 C

Home
(100 OFF)
म्बर्क्ट व्यामाम्बर्का
[[Reports]
ALTRAKTUR!
RenmsRenar
Products.

MEGA NETWORK OPEN ORDER REPORT November 19, 1998

Company Southern California Edison	ia Edison							
Attention: JOONB								
Open orders.								
PO Number - PO D	PO Date - Contact							
[EF! 02:8903=0000000001E-1084]	Oceal Toker	7/21/98 CRAIG WILSON (626) 302-6388	26) 30	2-6388				
Manufacturer	Part#	Description	Ŷ	Qty Shipped	1st Chin	Last	RMAs	Notes
DELL	62705	DELL 2.1 GIG HD FOR DELL LATTITUDE XPI 133 tag 73c6v			d	dine		
PO Number - PO Da	PO Date - Contact							
E1028903-000000001-1012		6/24/98 CRAIG WILSON (626) 302-6388	(9)	2-6388				
Manufacturer	Рат#	Description	ê	Qty Shipped	1st Shin	Last	RMAs Notes	Notes
DELL	58787	USR, DATA/FAX, 33.6 MODEM, PE SVR				1		
			]					

FIG. 39 A

PO Number - PO Date	ite - Contact							
ETION SOUTHOUS CONTRACTOR	ii dala ja Kook	6/15/98 CRAIG WILSON (626) 302-6388	300	-6388				
Manufacturer	Part#	Description	ŝ	Shipped	1st Ship	Last Ship	RMAs Notes	Notes
DELL	15342	INTERNAL CD ROM 32X FOR DELL OPTIPLEX XPI	20					
DELL	35532	SVC RAILS, DR. LCHAS	50					
PO Number - PO Date	te - Contact							
9153860200000000000000000000000000000000000		4/23/98 CRAIG WILSON (626) 302-6388	(9)	-6388		,		
Manufacturer	Part#	Description	ξ	Shipped	1st Ship	Last Ship	RMAs	Notes
YAMAHA	CRW4260TIPC	6X/4X/2X REWRITABLE SCSI INT CD-ROM	0 1					
YAMAHA	CRW4260TXPM	6X/4X/2X REWRITABLE SCSI EXT CD-ROM						
PO Number - PO Date	te - Contact							
()E1028903-000000001:0632		5/4/98 CRAIG WILSON (626) 302-6388	) 302-	6388				
Manufacturer	Раги#	Description	ê	Shipped	1st Ship	Last Ship	RMAs Notes	Notes
IOMEGA	10660	ZIP PLUS 100MB PPT FOR PC OR MAC W/ AUTODETECT		0				
PO Number - PO Date	te - Contact							

FIG. 39 B

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FEIGESPOSEGOOOOOG SIGNI		11/5/98 CRAIG WILSON (626) 302-6388	JE (97	12-6388				
Manufacturer	Part#	Description	Qty	Shipped	1st Ship	Last Ship	RMAs Notes	Notes
COMPAQ SERVERS 169470-B21	169470-B21	6200 512K PROC OPT KIT PROLIANT 6500 7000	6	0				
COMPAQ SERVERS 241773-B21	241773-B21	512MB KIT (4X128MB DIMMS) 60NS EDO ECC PROLIANT	2	0	·			
COMPAQ - SERVERS	303607-B21	RACK KEYBOARD DRAWER SHELF KIT	5	0				
COMPAQ COMPUTER CORP. 294013-001 (SERVERS)	294013-001	REMOTE INSIGHT/PCI (LAN + MODEM)	13	0				

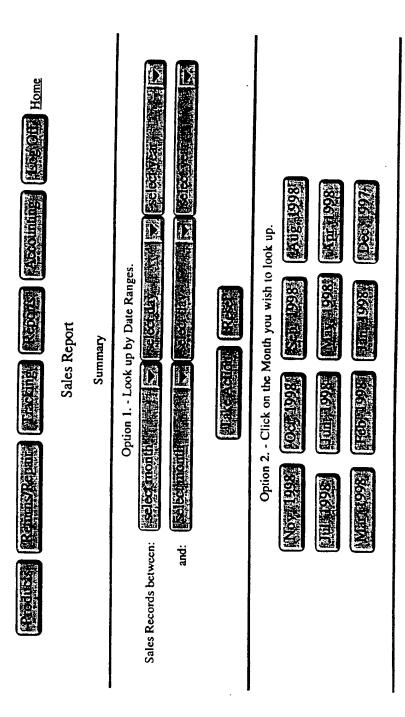


FIG. 40

FIG. 41

FIG. 41 A
FIG. 41 B
FIG. 41 C
FIG. 41 D

FIG. 41 A

Sales Report - Oct 23, 1998 - Oct 25, 1998

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Manufacturer	Part Number	Description	Total Quantity	Total Cost	Average Unit Cost	Number of Times Ordered
DELL	220-0386	LATITUDE CP, M233ST, 12.1" SVGA, TFT, FACTORY INSTALLED	30	57,540	1,918	1
DELL	220-0501	DELL P6400GX1/MT+ BASE(100MHZ FSB)W/4MB INTEG VIDEO MEMORY & AUDIO, 512K CACHE	100	149,500	1,495	1
DELL	310-0019	MICROSOFT SYSTEM MOUSE	100	0	0	-
DELL	310-0038	PERFORMANCE 104 KEY KEYBOARD FOR WINDOWS 95 FACTORY INSTALL	100	0	0	1
DELL	310-0039	Performance 104 Key Keyboard for Windows 95. Customer Install	30	1,380	46	-
DELL	310-2268	REDUCED DOCUMENTATION FOR GXaEM/GNL SYSTEMS, FACTORY INSTALL	100	0	0	1
DELL	310-3043	No Modem For All Dell Notebook	30	0	0	1
DELL	311. )342	64MB, IDIMM, EDO, LATITUDE CP FACTORY INSTALLED	30	0	0	1
DELL	31 ' - J509	64MB, NON-ECC, SDRAM, 1 DIMM, 100MHZ, GXI, 350+ MHZ	001	0	0	1

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-	1	1	1	1	1	1	1	1	1	-	1	-
0	0	0	0	0	0	0	0	0	0	0	0	31
0	0	0	0	0	0	0	0	0	0	0	0	930
100	30	100	100	001	001	30	30	30	30	30	30	39
64MB, NON-ECC,SDRAM, 1 DIMM, UPGRADE, GX1, 350+MHZ, FACTORY INSTALL	20X CD ROM, INTERNAL/EXTERNAL LATITUDE CP FACTORY INSTALL	14-32X CD ROM, IDE, FACTORY INSTALL	MONITOR OPTION-NONE	3.5" 1.44MB FLOPPY DRIVE, FACTORY INSTALL	6.4GB IDE HARD DRIVE, GX1, M/T, 350+ MHZ, FACTORY INSTAIL	6.4 GB HD, 12.5MM, LATITUDE CP FACTORY INSTALL	DELL PLUS INFO, PRINT LABEL LARGE	DELL PLUS INFO SKU MANUAL SFTWARE INSTALLATION	DP CONSIGNED LABEL SCE	DELLPLUS SCE CONSIGNED WINDOWS 95 IMAGE FOR THE LATITUDE CP, FACTORY INSTALLED	DELL PLUS ROUTIN SKU	DELL INTEGRATION FEE
311-0515	313-0236	313-0524	320-3316	340-0701	340-0740	340-2166	360-3527	360-4801	360-5087	360-7371	365-0257	365-0366
DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL

<u></u>							
0	0	0	0	0	0	0	
0	0	0	0	0	0	0	
100	30	100	100	100	100	30	
FAT32, FILE SYSTEM, WINDOWS '9X, FACTORY INSTALL	WIN95, W/CD all Latitude CP Factory Install	WINDOWS '95 CD ROM, OSR 2.1, FACTORY INSTALL	Active Expansion Riser for GXIM/T Systems, 3 PCI/2 Shared/2 ISA Wake up on Lan	SELECTCARE, NEXT BUSINESS DAY ON-SITE SERVICE, INITIAL YEAR, WANG	SELECTCARE, NEXT BUSINESS DAY, ON-SITE SERVICE, 2 YEAT EXTENDED, WANG	Selectcare, Initial Year, Next Business Day On-Site Service Contract, BSC*	
420-0137	420-0541	420-6108	430-0118	900-1730	900-1732	900-1950	
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FIG. 41 C

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PO Number	PO Date	Last Date Products Shipped	Status	Total Amount
HE1028903-000000011-1299	10/23/98	11/4/98	Complete	956'99
E0102896540000000017 [298]	10/23/98	11/4/98	Complete	166,833
			Grand Total:	233,790
For the Period by	etween: Oct 23, 199	For the Period between: Oct 23, 1998 and Oct 25, 1998	Number of Orders:	2

Option 1. - Look up by Date Ranges.

s between:		
Sales Record	Sales Records between:	and:

## Market Autority (NYSKE)

Option 2. - Click on the Month you wish to look up.

A41841998	*Apr. 1998	#IDEC #1997;
866 Ed 55	8001-XEVA	866 1 1121
<b>ROST#1998</b>	fault 100x	EEDW1998
8661 KOON	18667-1100	Warr1998

FIG. 41 D

Home Home	
mines sam	Option 2. Serial Option 4. PO Number: Option 6. RFQ
PACKING SLIPS Search Options	A STATE OF THE STA
PACKIN Search	Silont
Reministropan	
	Option 1. Asset Tag Option 3. Invoice Number: Option 5. Purchase Req Option 5. Number:
	Option 1. Option 3. Option 5.

Option 7. Please click on the month of the approximate ship date

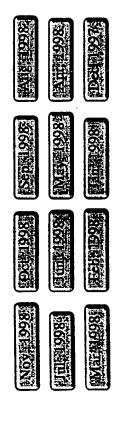


FIG. 42

PACKING SLIPS for the month of Oct, 1998

Packing Slip#

Packing Slip#

Packing Slip#

Packing Slip#

Packing Slip#

FIG. 43

MEGA	MEGA NETWORK PACKING SLIP	KING SLIP				No	No. 17630
785 Palom	iar Avenue, Sunnyva	785 Palomar Avenue, Sunnyvale, CA 94086 Phone (408) 730-9138 Fax (408) 720-1293	(408) 730-91	38 Fax (40	8) 720-1293	ĕ	Oct 5, 1998
	RETURNS A WITH	RETURNS ALLOWED WITHIN 20 DAYS OF 10/5/98 WITH AUTHORIZED RMA NUMBER	N 20 DAY: RMA NUM	S OF 10/5/ BER	86	W <sub>0</sub>	M98-28462
For:	SOUTHERN CAL	SOUTHERN CALIFORNIA EDISON					
PO Num:	E1028903-000000001-1228	001-1228					
Bill To:	SOUTHERN CALIFORNIA E 2244 WALNUT GROVE AVI Rosemead, CA 91770 Att: ACCOUNTS PAYABLE	SOUTHERN CALIFORNIA EDISON 2244 WALNUT GROVE AVE., RM#210 Rosemead, CA 91770 Att: ACCOUNTS PAYABLE	Ship To: 0		SOUTHERN CALIFORNIA EDISON 501 S. MARENGO ST BLDG D, SMART#105004 Alhambra, CA 91803	FORNIA 1 ST #105004 33	<b>EDISON</b>
Contact:	CRAIG WILSON (626) 302-6388	(626) 302-6388	PO Num:	Au. E um: E1028	All: BANCIEC E1028903-000000001-1228	01-1228	
Sales Person	u	Ship Via	Term	FOB	RFQ	PD	PRN
Charles Wong	gu	Ground	N30	Orig	1228		105004

FIG. 44

\* RETURNS SUBJECT TO RESTOCKING FEE \*

Part number 317756-001

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	Sales	es	CSR	æ	Ac	Acct.	Supervisor	visor	Mg	Mgnt.
	n	A	U	Α	n	А	n	А	Ŋ,	А
1. Add names.	 >	^	^	^	۸	>	۸	<b>\</b>	<b>\</b>	^
2. Delete/change names.	^	0	^	0	٨	0	٨	0	٨	٨
3. Authority to post own quotes.	 +	+	+	+	+	+	+	^	+	٨
4. Authority to post others' quotes.	+	+	+	+	+	+	+	+	+	٨
5. Authority to track own sales status.	+	>	+	>	+	<b>\</b>	+	٨	+	٨
6. Authority to track own RMA status.	+	>	+	>	+	>	+	<b>&gt;</b>	+	۸
7. Authority to track own sales history.	+	>	+	>	+	>	+	>	+	٨
8. Authority to track own RMA Listory.	+	>	+	>	+	۸	+	<b>\</b>	+	۸
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FIG.45A

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>	>	>	>	>	>	٨	۸	٨	٨	
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+	+	+	+	+	+	+	+	+	0	
+	+	+	+	+	+	+	+	+	0	
+	+	+	+	+	+	+	+	+	0	
+	+	+	+	+	+	+	+	+	0	
+	+	+	+	· +	+	+	+	+	0	
+	+	+	+	+	+	+	+	+	0	
z	Z	Z	Z	Z	Z	Z	Z	Z	Z	
9. Authority to track for others' sales status.	<ol> <li>Authority to track for others' sales status.</li> </ol>	<ol> <li>Authority to track for others' RMA status.</li> </ol>	<ol><li>Authority to track for others' sales history.</li></ol>	<ol> <li>Authority to track for others' RMA history.</li> </ol>	14. Maximum # of ship to per user.	15. Maximum # of PO/day/user.	16. Maximum \$ of PO/day/user.	17. Maximum \$ of PO/day/company.	18. Overall credit limit.	

**-1G.45B** 

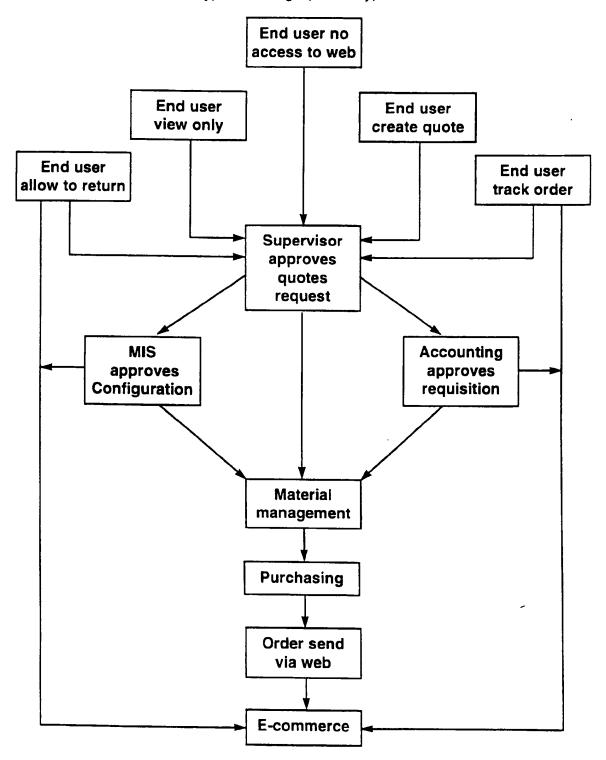
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19. Default maximum PO								•			
\$ amount.	z	+	+	+	+	+	+	+	+	>	>
(Send atert & stop MWS posting)										•	•
20. Authority to use credit card purchase	z	+	+	+	+	+	+	+	+	۸	^

N = Blocked view, only management has view. + = Add, but cannot activate web acitivity. v = Add, and activate web activity.

O = Block out, not applicable.

Typical Lineage (Authority) Tree



**FIG.46** 

Customers: Modify Record	12:00 AM	Sales Rep Code:	CCHESI	sp.	Ι		<u> </u>		Promise Days:		S:	FOB: Orig	No FOB Adj	1	S8	<b>S</b>	•	Add	
stomers: Moo		Seq*:	12	Keywords		<b>•</b> 1	. I €≣D	Post with RFQ	Post with PID	☐ No Zero Cents	Core Products days	On Site Def: FC		City	Milpitas	Milpitas		Edit (	
Cu		Company Code:				<u> </u>	······································	Margin:	Terms:	Ship Via:	UPS	hstal Price:	45.00	1	1537 CENTRE POINTE DR.	1537 CENTRE POINTE DR.		Duplicate (	
			Fax: (408) 945- 1080					s used on an MWS.					n grey box above.	Address 1	1537 CENT	1537 CENT		Delete )(	
			Fax: (4)	Phone 2:	PORATION OINTE DR.	5035 Idu Chen		ien the customer is					same as address i	Contact	Chen	CHEN		)	<b>*</b> :
		NOI		Contact Phone 1: (408) 945- 0808X115	ess TWINHEAD CORPORATION 1537 CENTRE POINTE DR.	Milpitas, CA 95035 Attention: Melody Chen		Will be displayed when the customer is used on an MWS.			-		address below is the same as address in grey box above.	sany name	CORPOR ATION	CORPORATION		) Notes	lial
	Customers	Company Name:	Contact Melody Chen	tact Phone 1: (408	y Addr	Click to edit.		CustomerNotes:				!	Addresses Comp a	Type MWS Comp	TY INHE AD	Ship TWINHEAD CO		Ship To Default	No Parti
		S E	ပိ	ပိ				ن				•	Addr	Df 1	<b>≯</b>	<i>U</i> )		2	<b>S</b>

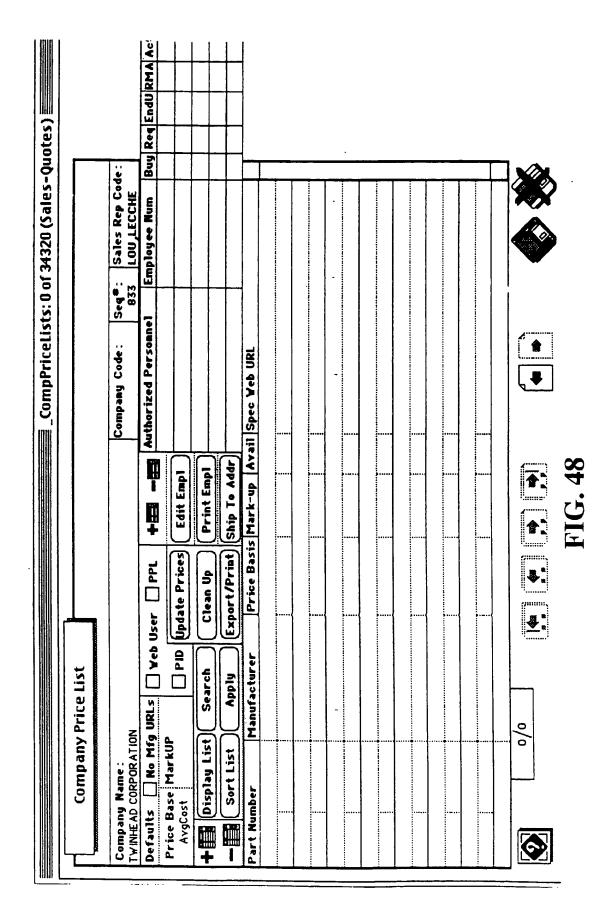
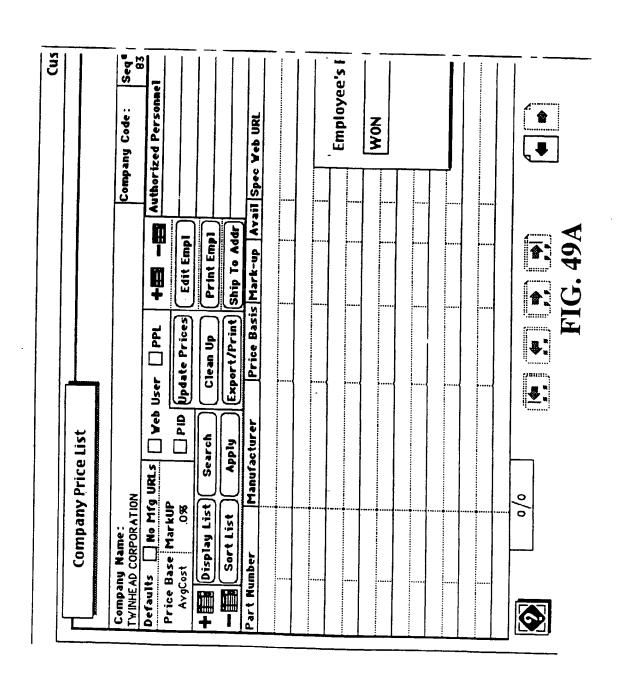


Fig. 49

Fig.49A	Fig.49B



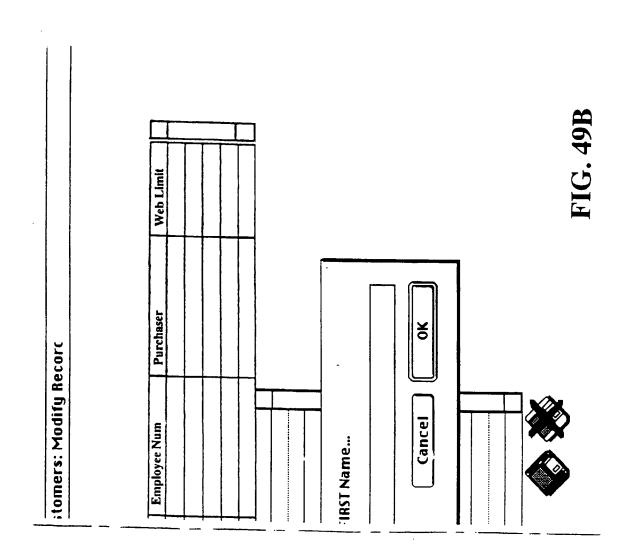
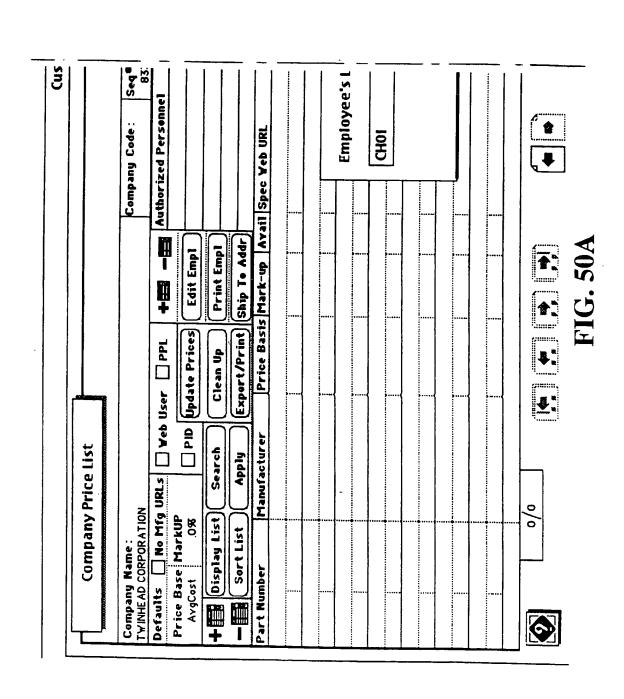


Fig. 50

Fig.50A	Fig.50B



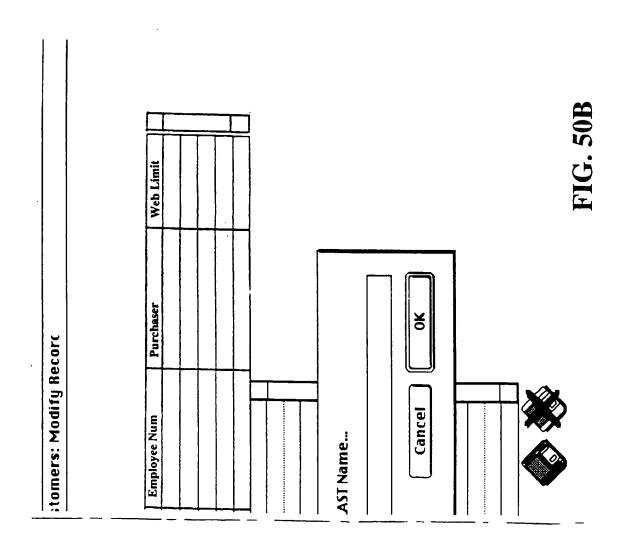
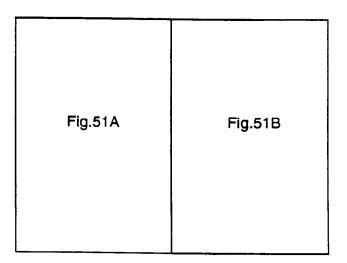


Fig.51



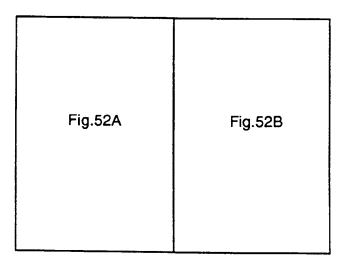
	ny Price List		
Company Name:			······································
WINHEAD CORPO			
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Display Li	st Search	Clean Up	Print Empl
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		•	
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<u> </u>			
			_: <u>.</u>

**FIG. 51A** 

Company Code:	Seq#:	Sales Rep C	ode:	
thorized Person	833	LOU,LECCHE	Purchaser	Veb Limit
		<del></del>		
Spec Web URL				
		· · · · · · · · · · · · · · · · · · ·	+-1	
to g	jenerati	e a number).	ımber (leave l	

**FIG. 51B** 

Fig. 52



	AD CORPORAT						_	Compai	
Default Price	ts No Mi Base Marku	fg URLs	☐ ¥eb	User [	PPL	+== -	<b>*</b>	uthoriz	ed Pe
AvgC			PID	Update	Prices	Edit Emp		-	
+1	Display Lis	t Se	arch	Clea	n Up	Print Em	pl _		
	Sort List		pply	Export	/Print	Ship To A	idr)		
art Nu	ımber	Manufa	cturer	Pr	ice Basis	Mark-up	Avai	1 Spec	Yeb l
	······································			······		•••••••••••••••••••••••••••••••••••••••	·	·· <del>-</del> ;······	
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		<u> </u>					- 1		
					***************************************				[ •
					***************************************				

**FIG. 52A** 

833 LOU, LECCHE  Sonnel Employee Num Purchaser Web Limit  ON CHOI authorized to make web purchases? If e/she will be able to create but NOT SUBMIT quotes.	Cus	tomers: Modify Ro	ecorc	
DN CHOI authorized to make web purchases? If e/she will be able to create but NOT SUBMIT quotes.		: Sales Rep Code:		
N CHOI authorized to make web purchases? If classifications of the control of the			Purchaser	Web Limit
v/she will be able to create but NOT SUBMIT uotes.				
ncel No Yes	/she wil	ithorized to make I be able to create	web purchases but NOT SUBMIT	? If
	ncel	No	Yes	
	**			

FIG. 52B

Fig. 53

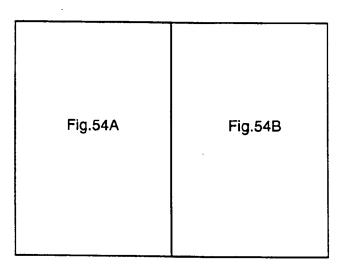
W INHE A	Name:			···· <u>·</u> ····				Comp	
efault Price ( AvgC	Base MarkU	P	☐ ¥eb ☐ PID	User  Update P		Edit Em		Author	ized F
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art Nu			cturer		Print) (Si			il Spe	: Yeb
			*****************			***************************************			
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**FIG. 53A** 

Nhat is WON CHOI's purchase limit (0=No	Cus	stomers: Modify R	ecorc	
Vhat is WON CHOI's purchase limit (0=No imit)	: Seq <sup>4</sup> 83	3LOU,LECCHE		
/hat is WON CHOI's purchase limit (0=No mit)	nnel	Employee Num	Purchaser	Web Limit
hat is WON CHOI's purchase limit (0=No mit)				
/hat is WON CHOI's purchase limit (0=No mit)				
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Vhat is WON CHOI's purchase limit (0=No imit)				Aur . The
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	imit)			
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**FIG. 53B** 

Fig. 54



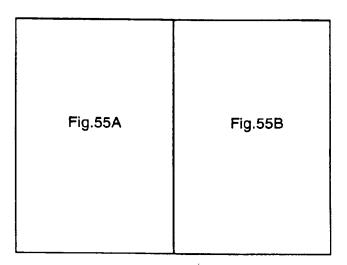
ompan WINHE A	y Name: D CORPORATIO	N					Company Co
efault	s 🗌 No Mfg	URLS 🔲 🗑	/eb User	PPL	+=	-=	Nutrior ized t
Price E AvgC	Base MarkUP ost .0%	P	Updat	e Prices	Edit E	mp1	
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Part Nu	ımber	Manufactur	er i	Price Bas	is Mark-	up Av	ail Spec
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**FIG. 54A** 

Cu	istomers: Modify	Record		
sonnei	Employee Num	Purchaser	Web Limit	_ <del></del>
		Turchaser	Web Limit	1
				]
<del></del>				-
npi Nun	ne:WON CHOI n: MNp1257 d: NWF16205			-
		ОК		
**		<b>)</b>		

**FIG. 54B** 

Fig. 55



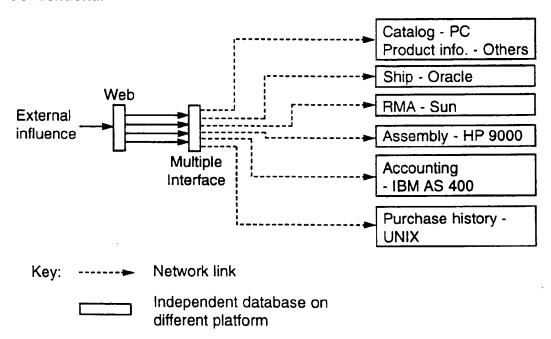
WINHE!	ny Name: AD CORPORATIO	ΩN						Company C
Defaul	ts 🗌 No Mf	g URLs	☐ Yeb	User	PPL	+= -		Authorized P
Price AvgC	Base MarkUl Cost .0%		PID	Upda	te Prices	Edit Emp		MON CHOI
- 🖺	Display Lis	t) Se	arch	C	lean Up	Print Em		
-	Sort List	A	ply	Ехр	ort/Print	Ship To A	ddr	·
art Nu	ımber	Manufa	oturer		Price Basis	3		il Spec Yeb
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			***************************************					*******************************
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		<u> </u>					<u> </u>	
		i						

**FIG. 55A** 

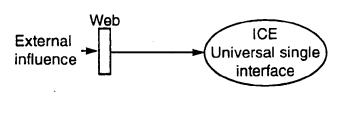
Seq	: Sales Rep Code:		
83	3 LOU LECCHE Employee Num	Υ	
onnel	Employee Num	Purchaser	Web Limit
		<del> </del> -	<del></del>
. <u></u>			
<del></del>			

**FIG. 55B** 

## Conventional



ICE

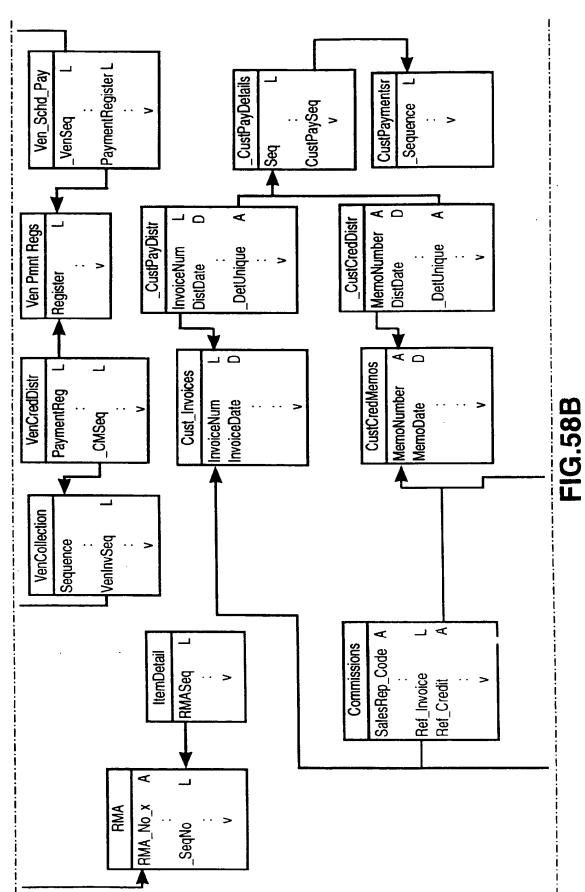


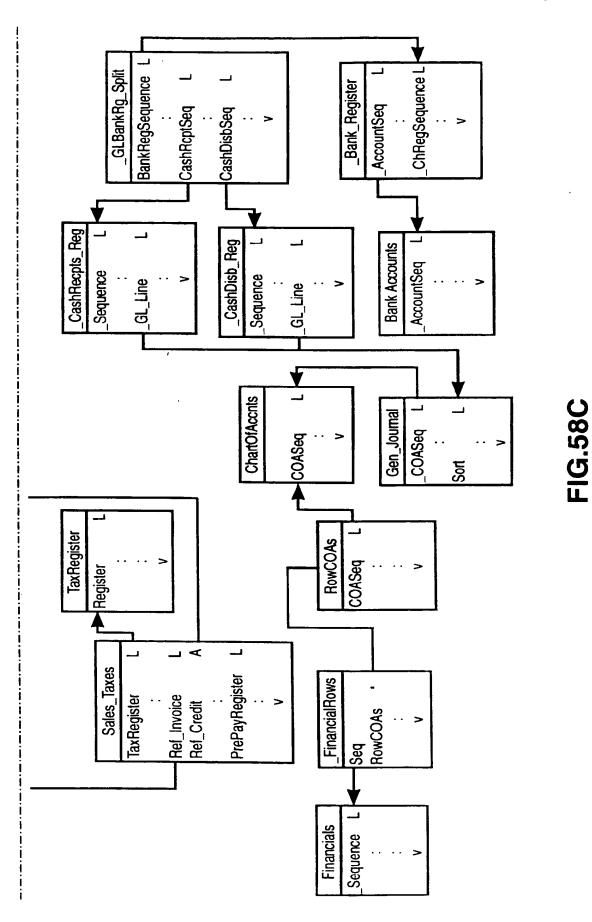
independent database on different platform

Fig. 58C	Fig. 58B	Fig. 58A

Fig. 58

112/435 Ven\_Invoices Shipping Receiving Seq uence shipDate \_Sequence RcvdDate \_Sequence Vendor RcvIDBoxLink ShipIDBoxLink InvoiceNum ShipSeq RcvSeq IDSeq **DSeq Entity Diagram Index** RMANum A \_ItemSoldSeq\_L Item Details \_DetailSeq **FIG.58A** QuoteDetail Items Sold QuoteSeq **MWSNum** \_ItemSeq aQuoteSeq L Quote Number A MWS Number A CustomerSeq L Sales Records Partner\_Name A Partner\_Code A Accts payable Accts Rcvable Sequence





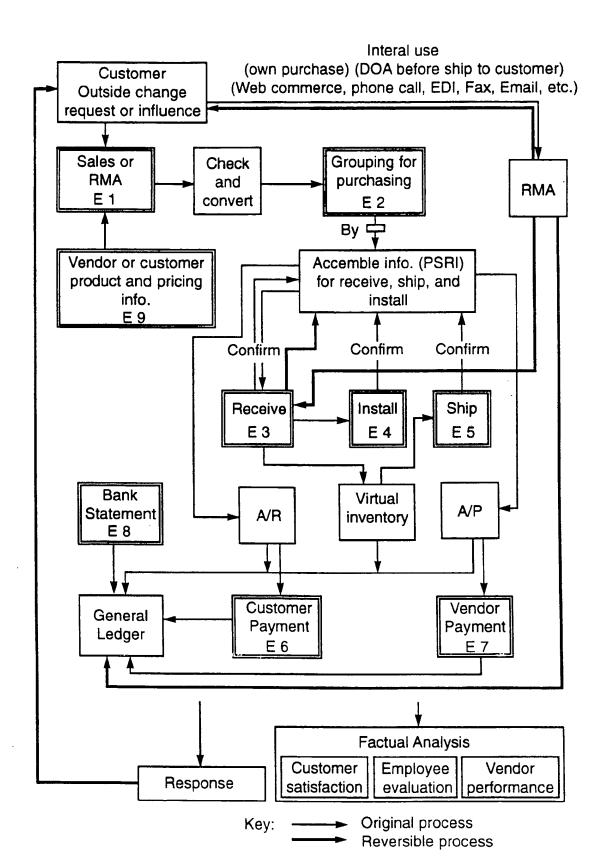


FIG. 59

Fig. 60

Fig.60A	Fig.60C
Fig.60B	Fig.60D

MWS No. date	Status	Customer	¥ Cust SRep	SRep # RMA No.
097-24525 5/22/97		Partia 415 > 222-7512	K KeithS	41
Kelth. 888		(415) 222-7988	NA	
		UC Berkeley NoPartial	al DAVID.L	-
497-24320 3/22/97 David. 111		KUNHLU UKIFFIIH (310) -542-1774 (510) -643-9117 TP0218	60	
		SRI INTERNATIONAL NOPartial	CURTIS.L	6
097-24524 5/22/97		) 859-2488		
Curtis, 111		(415) 859-4812 TP0221	1	
M97-24912	Sh	UNION BANK OF CALIFORNIA LOS ANINOPartial	I CURTIS.L	1
097-24527 5/29/97		DENNIS BAKER(415)296-6576	Customer	_
denniø baker		(415) 296-6568 6310008926	5 \$193 11.3K	-
M97-24897	8	FIRST DEPOSIT NoPartial	l KeithS	
097-24528 5/23/97		(415) 222-7512	Customer	_
Nemesio.ccc	╝	(415) 222-7988 20169-44952-38041	•	
M97-24913	Shipped	UNION BANK OF CALIFORNIA LOS ANINOPARTIA	1 CURTIS.L	-
097-24529 5/29/97	2/30/62	DENNIS BRKER(415)296-6576	Customer	_
dennis baker		(415) 296-6568 63 10008925	5 <b>\$193</b> 11.3 <b>%</b>	
	WebQuote	ORACLE NoPartial	1 KeithS	2
Q97-24530 5/23/97 SEJIN HAN	5/30/97			
	Shipped	UNION BANK OF CALIFORNIA LOS ANINOPartial	1 CURTIS.L	4
097-24532 6/18/97	6/30/97	6/30/97 DENNIS BAKER(415)296-6576		4
denniø baker		(415) 295-6568 6310009060		
M97-24898	Shipped	FIRST DEPOSIT NoPartial	KeithS	1
097-24533 5/23/97	5/28/97 TONY	415-222-7684		_
Метевіо, ссс		(415) 222-7903 20201-43784-N	● \$147 26.88	
		Gasonics International NoPartial	CURT IS.L	4
097-24534 5/23/97		ER (408) 570-73		

FIG. 60A

						<del> </del>			
									Options Update (1)
2	2 2	2		6		្តស	4	22	Quic (Switch
RJ.CASTRO	DAVID.L Customer © \$30,997 3.18	RJ.CASTR0	KeithS Customer 6 \$227 17.28	CURTIS.L	DAVEWALLA Customer \$431	CURTIS.L Customer \$2,995 27.48	KeithS	KeithS Customer \$360 16.88	RelatedSwitch Ou
oPartial TP0223	NoPartial PS077587 ©	NoPartial TP0224	•	NoPartial NA	NoPartial (Uerbal	•	NoPartial NR		R turn
N TECHNOLOG'No 842-2761 T		Z	384			IRNIA LOS ANÍNoPartial 291–4311 6310008944	NoP	NoPartial 20204-43301-N	New Records
CHEYRON INFORMATION TECHNOLOGNOPartial RICHARD CHAN (510) 842–2761 (510) 328–1710	UC Berkeley JOYCE HOLTER (510) 642-088 (510) 642-8604	LOCKHEED CORPORATION OLIVER 408–433–2566 (408) –736–4804	FIRST DEPOSIT KURT KIKKERT (415) 222–767 (415) 222–7903 20202–3	FIRST DEPOSIT MICHELE DUTRA (510) 227-5098 (510) -416-5016	ped SIGN CLASSICS 6/6/97 Lary Rose (408) 298-1600 (408) 298-3177	UNION BANK OF CALIFORNIA LOS ANIMoPartia) LINDA CHEUNG (415) 291-4311 (415) 765-2030	FIRST DEPOSIT TONY 415-222-7684 (415) -2227903	ed FIRST DEPOSIT /5/97 TONY 415-222-7664 (415) -2227903	Searches
CHEY RICH (510	76/	10CK 0L 106 (408	FIRST 797 KURT (415	FIRST MICHE (510	SIGN (408)		FIRST TONY (415)	FIRST 797 TONY (415)	1 2 Sets
	Ship		Shipped 5/28/97		Ship	Shipped 8/5/97		Shipped 6/5/	Sort
097-24531 5/23/97	M97-24920 Q97-24536 6/2/97 David. 111	997-24535 5/23/97	M97-24899 Q97-24537 5/23/97 Nemedio.ccc	097-24538 5/23/97 Keith.888	76/	M97-24947 097-24540 6/11/97 CURTIS LAU	097-24541 5/23/97 Nemesio. ccc	M97-24901 097-24542 5/27/97 Nemerio. ccc	Fast Dsp1

FIG. 60B

iales-MW	RFQ - PRN MYS No. date Comments Cancel	Q97-24525 5/22/97 N30 Good quote	Q97-24526 5/22/97 N30   Good quote	Q97-24524 5/22/97 N30   Good quote	M97-24912 ETA: AS SOON AS POSSIBLE: WEB PO Q97-24527 5/29/97   Good quote	M97-24897 ETA: 05/27/97: LOCAL STOCK Q97-24528 5/23/97   Good quote	30274   M97-24529 5/29/97   ETA: AS SOON AS POSSIBLE:	Q97-24530 5/23/97	304289 6/18/97 N30 FTA: 06/30/97: LINE 2 AND LINE 5 HAVE AN 8   Good quote	<b>M97-24898</b>   ETA: 05/28/97   Q97-24533 5/23/97    Good quote   N30	Q97-24534 5/23/97     Good quote
iales-MU	PID - R				3042		305		, 3042		

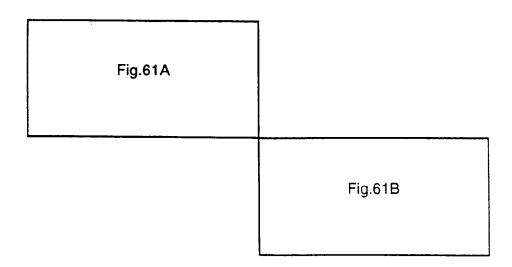
FIG. 60C

Q97-24531 5/23/97     Good quote   DUE ON RECE   Good quote   DUE ON PROPED THE   Q97-24536 6/2/97     Good quote   Good	Q97-24535 5/23/97     Good quote   N30   ETA: 05/28/97     Q97-24537 5/23/97     Good quote   N30     Good quote   N30     CTA: 05/28/97       CTA: 05/28/97       CTA: 05/28/97       CTA: 05/28/97       CTA: 05/28/97	Q97-24538 5/23/97     Good guote   N30     Do Not Drop Ship Dave will Deliver with his true   Q97-24539 6/2/97     Good guote   Gred i Card	M97-24947 eta: as s 097-24540 6/1.1/97 N10		M97-24901 eta: 05/30/97 Q97-24542 5/27/97   Good quote
			304290		

FIG. 60D

Clear on Teat Order

Fig. 61



	Γ	80	_				Ç	10	1777	1				₽						•	Ø.	
Master Work Sheet 🚞	12:00 AM	Fax (415) 222-7988		ORP, INC.	, ING	S 94105 GRAUMANN	us Jeach-PRICE-extric	128.00	128.00	Freight Free	CstExp6/6/97	CstExp		CstExp	128.00	10.88		138.88				
Master Master	SHIPPED Customer	Contact person & Phone No. Notes KURT KIKKERT (415) 222-7512	Ship to:	PROVIDIAN BANCORP, INC.	150 SPEAR ST 2nd FLOOR RECEIVING	San Francisco, CA 94105 Att: SYSTEMS/T. GRAUMANN	Pur-Cost-Sis mrgin-state	118.36 8.1	118.97 Shipd		Shpd 1 6/6/97	Shod .		Shpd	Sub-Total	Tax @ 8.5%	Installation	Total (+ ship & handling)		Print MYS	Show Quote	Cancel MWS
	M97-24922 SHIP	Contact person & Phone No. (KURT KIKKERT (415) 22		PROVIDIAN BANCORP, INC.	PO BOX191827 San Francisco, CA 94119-1827	Att : PURCHASING	-Manfetr -Manfet Part* V-Pt*-ShTyp-PIt-MC Oty-W Pur-Cost-SIs Imrgin-status Jeach-PRICE-extnd 合	237482 1			Revd 1 6/6/97	Revd		Revd	Reset	Line count = 1 Ta	4.98% 5.90 In	Commission 1.24 To	Sup Commission .06			d (Availability)
	PPED Customer		No Partial Bill To	PROVI	PRN PID RFQ San Fr			¥O	75X,760	ΚÞ	6/6/97 Ord/Ai#23-19990	Ord/A *	<b>,</b>	Ord/Al#	Notes & Comments Systs	MUGs	SMar	Co	Sup NEMESIOC Sup Co			Clipboard
	нs 26/2/9	Company FIRST DEPOSIT	Customer PO No.	20228-44035-N	FOB Terms CC	\ \s	Itm Description (red=not	1 AC ADAPTER (50W)	355,360,700,720,	S AND	Det Ordrd 1 6	llordrd		Ordrd	Read Comments.	MN Invoice #	AP Voucher #	Completed	Sales Rep. CURTIS.L			

FIG. 61A

	007-24530 1407-34022	
Company	Contact person & Phone No.	
FIRST DEPOSIT	KURT KIKKERT (415) 222-7512	222-7512
Customer notes (do not appear on MYS)	Notes that fit in box will fit on printouts of quotes. Customer notes only print out on quotes.	
MWS comments (do not appear on Quotes) Revie ETA: 06/06/97	Reviewd by Nemesio.ccc	Temporary notes
Comments that fit in box'vill fit on printouts of MVS. MVS comments only print out on MVS.		
Shipping notes	Backup notes	

FIG. 61B

Fig. 62

Fig.62A	Fig.62B
Fig.62C	Fig.62D

<ul> <li>new product or special offer</li> </ul>			Dealer price
1 :			
rt No.	Media Cd Platform	m Manufacturer	Mict Part No.
ACCEL GRAPHICS AGS00-010			
Cmplnd ACCL-404072	INTL PC/AT	WYLE LABORATORY	AG500-010
16MB KIT F/HP VECTRA VL/4			
Cmplnd ADM0-B0416		ADMOR MEMORY LTD	ADH16-3647
32MB F/HP 0MINBOOK 5000			
Cmplnd ADM0-B1136		ADMOR MEMORY LTD	ADH32-1136
PHOTOSHOP 3.0 MAC/POWERPC DISK/CD * DROP SHIP ONLY TO BRANCH #0091 **	PC DISK/CD * DRO	P SHIP ONLY TO BRANCH #0	** 160
Cmplnd AD08-023702		DOUGL AS STEW ART COMP AF 23702	AF 23702
FRAMEMAKER UPGRADE FOR WIN 5.1.1 *SERIAL NUMBER REQUIRED*	WIN 5.1.1 *SERIAL	NUMBER REQUIRED *	
Cmplnd ADOB-N1294		ADOBE SYSTEMS, INC.	2791-0017
8MB LP486 SIMM KIT W/GOLD LEAD	DLEAD		
Cmplnd AMG -B7040		ATLANTIC MEMORY GROUP II 10170040	P II 101 70040
32MB UPGRADE F/LP486 W/GOLD LEAD	GOLD LEAD		
Cmplnd AMG -87050		ATLANTIC MEMORY GROUP II 10170050	P II 10170050
8MB KIT F/LP486 WITH TIN TEAD	TEAD		
Cmplnd AMG -87100		ATLANTIC MEMORY GROUP II 10170100	P II 10170100
8MB CLASSIC R+ MODULE			
Cmplnd AMG -B7222		ATLANTIC MEMORY GROUP II 10170222	P II 10170222
SAFEJACK ADAPTER DUAL RJ1	=		
CmpInd ANGI-J0194		ANGIA CORPORATION	SJADP
UPS MONITORING BOARD W/CABLE, ISA	ABLE, ISA		
Cmolnd APC 3677U		AMERICAN POWER CONVERSI AP9500	RSI AP9500

	<b>4</b>	III												FIG. 62B
			<b>∑</b> Distinct	☑ Distinet	☑ Distinct	☑ Distinct	⊠ Distinct	<b>⊠</b> Distinct	∑ Distinct	∑ Distinct	∑ Distinct	∑ Distinct	⊠ Distinct	FIG
		Base Price	2,804.95 Import	105.34 Import	275.88 Import	182.53 Import	199.64 Import	110.35 Import	300.96 Import	90.29 Import	75.24 Import	12.04 Import	46.15 Import	
ales-ML≣	iller markup	Retail Price	3,495.00	149.00	349.00	279.00 12/1/96	205.00 12/1/96	170.00	465.00 12/1/96	139.00 12/1/96	115.00	19.00	89.00	
180719 (Sales-MIL	is include reseller markup	Dealer Price	2,889.09	108.50	284.15	188.00	205.62	113.66	309.98	92.99	77.49	12.40	47.53	

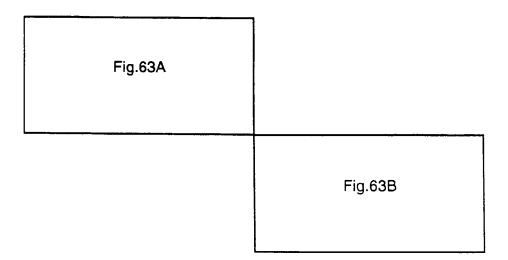
							_		 : ]			 - :						itohv
	II AP940-0012		II MXA006	Ψ	1 P7		I PNOTE1		I P10BT		I AP013		I PTEL1-4		21-001392		21-001892	Return QuickSwitch
	AMERICAN POWER CONVERSI AP940-0012		AMERICAN POWER CONVERSI MXA006	SURGE MOD P7, 7 OUTLETS, 3.5' CORD UL 1449 (400V) CSA APPROYED, 15 AMP	AMERICAN POWER CONVERSI P7		AMERICAN POWER CONVERSI PNOTE	1	AMERICAN POWER CONVERSI P10BT		AMERICAN POWER CONVERSI APO13	NOIS	AMERICAN POWER CONVERSI PTEL 1-4					New Records Re
	AMERICANE		AMERICAN	400V) CSA AP	AMERICAN F		AMERICAN F	PROTECTNET NETWORK SURGE PROTECTOR ETHERNET 10BASE-T	AMERICAN P		AMERICAN P	TELEPHONE/MODEM PROTECT/NET DATA LINE SURGE SUPPRESSION	AMERICAN P		01 COMMUNI		01 COMMUN	Quick Ven LU Quick Mfct LU Clipboard New R
ANNEL				2D UL 1449 (		CORD		ECTOR ETHER				ATA LINE SUF			IBM PC		IBM PC	Quick Quick Clipt
E MICRO CH				rs, 3.5' cof		TOR RUIT		URGE PROT				FECT/NET D			DK3	S	DK3	1 1 2 Sets ▼ S
RFACE CABL	6780	ERS	9000	7, 7 OUTLE	2000	JRGE PROTEC	8000	NETWORK S	0010	BRACKET	0013	MODEM PRO	0014			WORKGROUP		Sort •
NOVELL INTERFACE CABLE MICRO CHANNE	CmpInd APC -C678U	MATRIX CASTERS	CmpInd APC -H0006	URGE MOD F	Cmplnd APC -H0007	NOTEBOOK SURGE PROTECTOR RJ11 CORD	CmpInd APC -H0008	ROTECTNET	Cmplnd APC -H0010	WALLMOUNT BRACKET	Cmplnd APC -H0013	ELEPHONE/I	Cmplnd APC -H0014	01/FAX	Merisel 25472	01/FAX FOR WORKGROUPS	Merisel 25842	
2	Cmply	Σ	Cmph	SUF	Cmpluc	NON	Cmplnd	PRC	Cmplno	WA	Cmplnd	TEL	Cmplnd	01/	Merise	01/	Merise	

## FIG. 62C

				ļ ,				
∑ Distinct	∑ Distinet	∑ Distinct	M Distinct	∑ Distinct		🛚 Distinct	🛚 Distinct	∑ Distinct
Import	69.22 Import	6.02 Import	11.04 Import	16.05 Import	19.06 Import	45.14 Import	36.82 Import	230.34 Import
12/1/96	106.00	14.99	29.99	39.95	29.00	89.99 12/1/96	79.00	399.00
20.66	71.29	6.20	11.37	16.53	19.63	46.49	36.82	230.34

FIG. 62D

Fig. 63



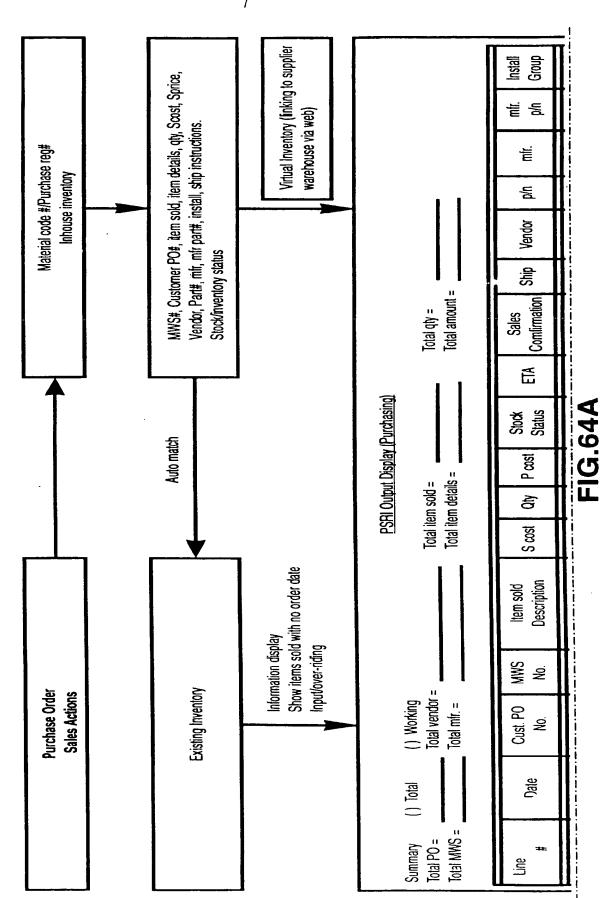
Quote	2 SHIPPED Customer M-930002 SHIPPED Customer 12:00 AM	Contact person & Phone No. Notes Fax Gerry Binkhorst (408) 982-3350 (408) 982-3400	No Partial Bill To:	FUJITSU-ICL SYSTEMS, INC.	erms (E) PRN PID RFQ P.O. Box 58112 P.O. Box 58112	Santa Clara, CA 95052	Attention: Christina Kennedy	-Manfetr -Manfet Part#N-Pt#-ShTyp-P11-MC Oty-W Pur-	lu.	MicroD MN each 53.97 Shipd 57.00	CE S! 930USQM360X Mac 1.4   36/05	1 6/3/93	drd Ord/AI* Revd Shpd CstExp	drd Ord/AI* Revd Shpd CstExp 4	Notes &	Old Sustem MWS MUGs Li	1/1/93 Commission 5.23 Total (+ ship & handling) 61.70	Pat Sup Sup Commission	RMA Show Quote	board	FIG 63A
	12/29/92 SHIP	SYSTEM	Customer PO No	11613	Terms (	Orig N30	Items Ship Via UPS	١ ١	ALCO AU 286 UK O SIN		OLIAR TERDECK OFF	X Det Orded 1 6	Ordrd	Ordrd			Completed			Edit	

	2000E5-W 0200E6-0	
	12/28/92 12/29/92	
Соправи	Contact person & Phone No.	
FUJITSU-ICL SYSTEMS, INC.	Gerry Binkhorst (408) 982-3350	-3350
Customer notes (do not appear on MVS)	Notes that fit in box will fit on printouts of quotes.  Customer notes only print out on quotes.	
MVS comments (do not appear on Juotes) Reviewd by	Temporary notes	y notes
Comments that fit in box vill fit on printouts of MVS. MVS comments only print out on MVS.		
Shipping notes 0	Backup notes	

FIG. 63E

Fig. 64

Fig. 64A	Fig. 64B	Fig. 64C
----------	----------	----------



12/11/07	5			Compaq SCSI HD	Collipad Scol AD	Compaq SCSI HD	Compaq SCSI HD
Credit card			,	Critical	Z8515 Critical	Critical	Z8515 Critical
B/0	8		70	Compaq proliant	Compaq proliant	Compaq proliant	Compaq prolant
			64	Track 54		Track	Track
stock	읓		Ç		Compaq memory	Compaq memory	Compaq memory
			2	2	01 01097		61682
short stock	😾					HP Vectra	HP Vectra
000			£			61 +02	61 +02
Inventory	হ	<u>_</u>	ر ا	HP memory	НР тетолу	НР тетоу	HP memory
			-	-	78415	1444PA 28415	
B/O	<b>8</b>			HP Printer	HP Printer	HP Printer	HP Printer
		0	500	Drop Ship		Drop Ship	28415 Drop Ship
	I				-	-	ı
					rtable.	adings are sortable.	= All headings are sortable.
χοίος	គ	ant MWS = Red o	* Replacement MWS = Red o	item deails. ** Replacement MWS = Red color			Page - SWM transportant   Signature   Si

FIG.64B

Double click item sold to item details and select/hold into group for new item sold

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Custom tracking

Freight charge

Shipping method - Drop ship

ltem Sold

Cancel Change

Install

ltem details

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Vendor

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Install

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Grouping

Actions:

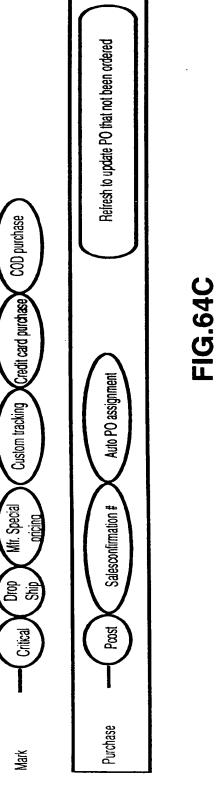
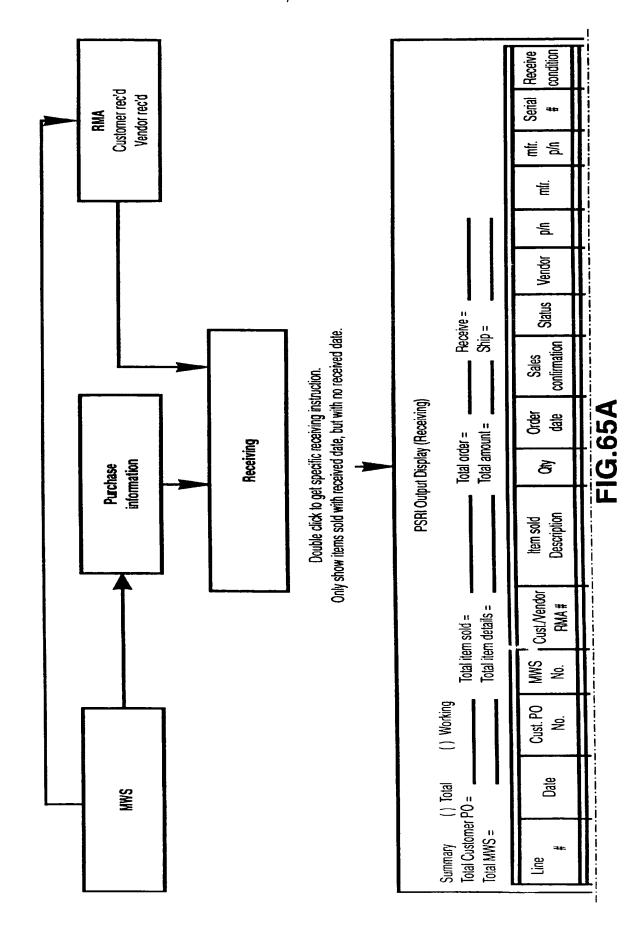


Fig. 65

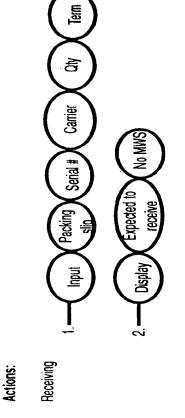
Fig. 65A	Fig. 65B	Fig. 65C
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					Compaq SCSI HD		14.00.07		Piod		1700		 
	10/11/97	1556-WX	28515		Critical	ဂ	1:/20/97	Credit card	Note	lecndata	12345	Compad	
	100		000.40		Compaq proliant	76	70/06/11		Refuse	- 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1			
5	10/11/9/	1556-WA	78515		Track	ţ	I II I I I I I I I I I I I I I I I I I			lecndata	13554	Сотрас	<u>-</u> -
	101101	<del> </del>	2004		Сотрад тетогу		76/61/11		stock	Moder	73507		
<u></u>	<i>R</i> /11/01	V <b>M</b> -000	C  C07			•				Melisel	13334	hed liba	
	50	-	2,700		HP Vectra	ç			S				
4	/6/11/01 	1444PA	28 5 5 5 5 5 5 5 5 5 5 5 5 7 5 7 5 7			73	11/20/9/	000		Micro	13554	웊	
,			17760		НР тетолу	P	11/21/97		¥		7,107	9	 
<u>.                                      </u>	10/11/9/	144PA	28415			-		-		Microage	4555 4555	<del>L</del>	
			.,,		HP Printer	VVC	11/19/07		¥	Computer	7.3.07	٩	
φ	10/11/97	1444PA	25 25 25 25 26 27 27 27 27 27 27 27 27 27 27 27 27 27		Drop Ship	887	1671111		Note	land	3554	<del></del>	
	## = W	= All headings are sortable.	rtable.										
* All items are	selectable and	All items are selectable and expand (double click) into item deails.	click) into it	lem deails.	* Replacement MWS = Red color	MWS = R	ed color						

FIG.65C



Boxes

Boxes

1. Expected to receive will exclude refusal items.

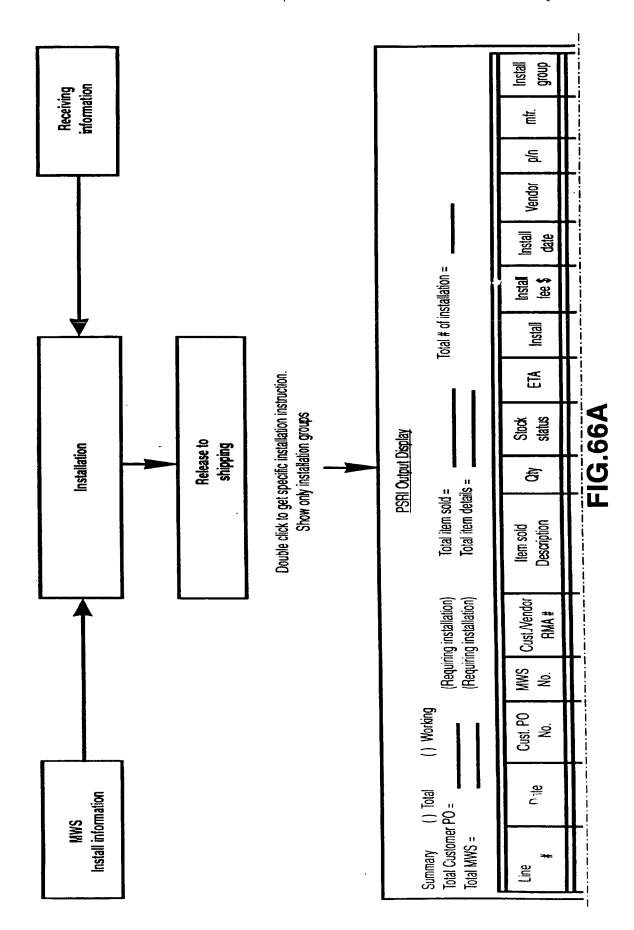
3. — Notes.

2. Expected to ship will exclude retusal items, hold items and items with COD/cash term.

3. Batch input for all packing slips and items. The system automatically match input with items that existing in the system to all items that received.

Fig. 66

Fig. 66A	Fig. 66B	Fig. 66C
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<u></u>	/6/11/01	בייליל ל			Conspay coor	L		1	->					
			28015		Critical	င	Notes	12/25/97	<b>&gt;-</b>		lechdata		12345 Compaq	
		Am out	7,700		Compaq proliant	76	B/O	547707	-		100	7.157		
2 10/	16/11/01	1330-WA	C1097		Track	<b>t</b> 3	Notes	12/U/3/	 Z		lecricala	٠ دري دري	S S	
		1666 MIY	31300		Сопрад тетолу	9	stock		>		Marical	13554	Сотрад	
3	16/11/01	VM-0001	C1007				Notes		<u> </u>	-				
1/01	10/11/07	1444PA	28415		HP Vectra	۳.	Short stock		>		Ingram	13554	 유	
						,	Notes		-		Micro			
		107777	00115		НР тетогу	7	stock		>		Microago	13554	9	
C/DI c	19/11/01	1444PA	CI 497			-	Notes		-		Si Diagram	1000	<b>=</b>	
			00445		HP Printer	000	B/0				Computer		9	
9 101	10/11/97	1444PA	28415		Drop Ship	2007	Notes	12/5/97	<b>&gt;</b> -	-	land	13034	<del>-</del>	
	= All head	= All headings are sortable.	lable.					,	Option:	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				
* All items are select. Le and expand (double click) into item deails.	e and expe	and (double c	click) into ite	em deails.	* Replacement MWS = Red color	AWS = Re	oloc bi		. Show only need to be inst	<ol> <li>Show only need to be installed with received date</li> </ol>	led with recei	red date		

FIG.66C

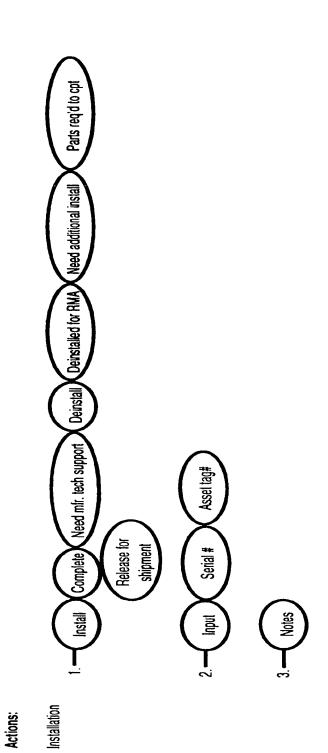
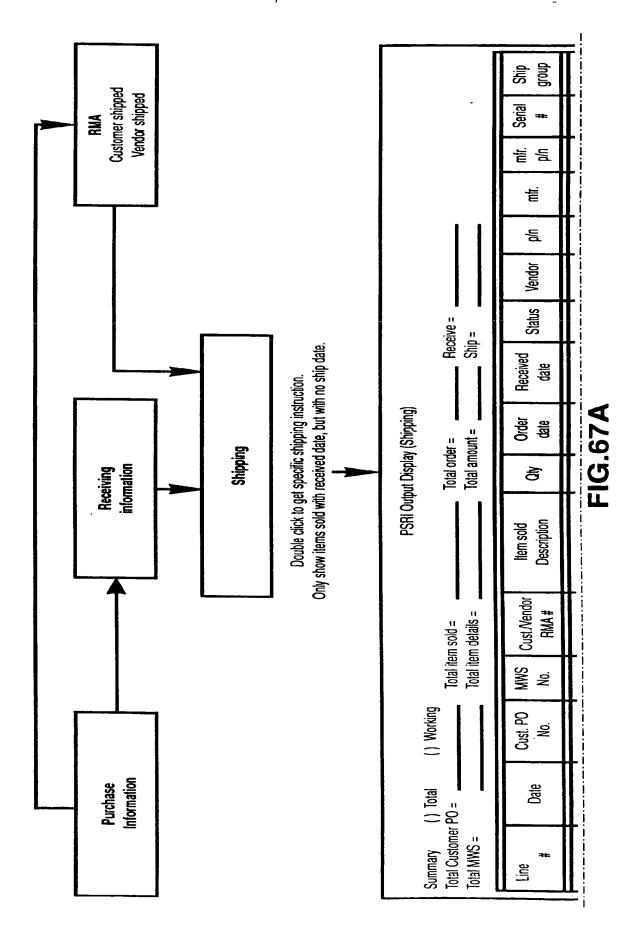


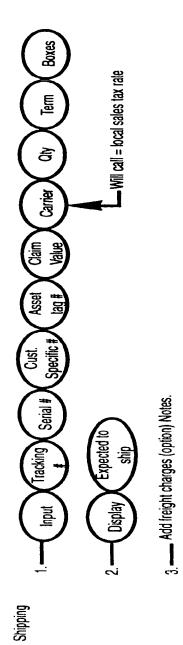
Fig. 67

1
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					Compaq SCSI HD		1100107	Hold		17007				
	10/11/97	1556-WX	28515		Critical	ဂ	I IZUSI	Note	lecndala	12943	Compad			
		Alfi Gast	00040		Compaq proliant	16	11,00,07	Refuse						
	10/11/97	1556-WX	C1C97		Track	<b>4.7</b>	1803/		lechdata		13554 Compaq			
	70/44	1556 WY	20515		Сотрад тетогу	10	11/19/97	Stock	Morical	13551	Commod	_		
~	8 0	000	2001							3	oompad			
	10,770	i di	20760		HP Vectra	·	14.80.00	₹	Ingram	73.07	<u>.</u>			
4	/6/11/01	1444PA	CI #97			n	11/20/97		Micro	13554	£			
	Egittion		70415		НР тетогу	7	11/21/97	¥	Microsop		5			
<u>م</u>	/6/11/01 	1444PA	£ 85 87 87 87 87 87 87 87 87 87 87 87 87 87			-			afan nafa	1000±	E			
			27700		HP Printer	æ	11119/07	ЖО	Computer		9			
<b>6</b>	10/11/97	1444PA	SI \$87.		Drop Ship	3	162111	Note		15374	<del></del>		-	
	= All h	= All headings are sortable.	rtable.								į			
. All items are	' All items are selectable and expand (double click) into item dealls.	xpand (double	click) into it	tem deails.	* Replacement MWS = Red color	MWS = R	ed color							

## FIG.67B



Actions:

1. Expected to receive will exclude refusal items.

Expected to ship will exclude refusal items, hold items and items with COD/cash term.
 Batch input for all packing slips and items. The system automatically match input with items that existing in the system to all items that received.

Fig. 68

Fig. 68A	Fig. 68B
Fig. 68C	Fig. 68D

_	Item	
	Select (highlight)	١

<u>ltem d</u>

Line #	Date	Cust.PO No.	MWS No.	Cust./Ven RMA#	Item sold Description	Qty
1	10/11/97	1556-WX	00545		Compaq SCSI HD	
, '	10/11/97	1550-777	28515		Critical	1
2	10/11/97	1556-WX	28515		Compaq SCSI HD	
_	16/11/07	1550-447	20313		Critical	1
3	10/11/97	1556-WX	28515		Compaq SCSI HD	
		1550-44%	20313		Critical	1
4	10/11/97	1556-WX	28515		Compaq SCSI HD	
	10/11/97	1556-447	20515		Critical	1
5	10/11/97	1556-WX	28515		Compaq SCSI HD	
_	. 3, 11107	1330-447	20010		Critical	1

Fig. 68 A

details input

to group

etail Dispaly

Existing Satus	Cust. Inv.	Ven. Inv.	Serial#	Vendor	mfr	Install Group	Ship Group
В/О							
B/O							
B/O							
B/O							
B/O					-		

Fig. 68 B

* All items are selectable and can be made *Replacement MWS = Red color	headings are sortable.  de into different groups.
Unique installation note:	Unique shipping note:
Standard default notes from custmer file	Standard default shipping n

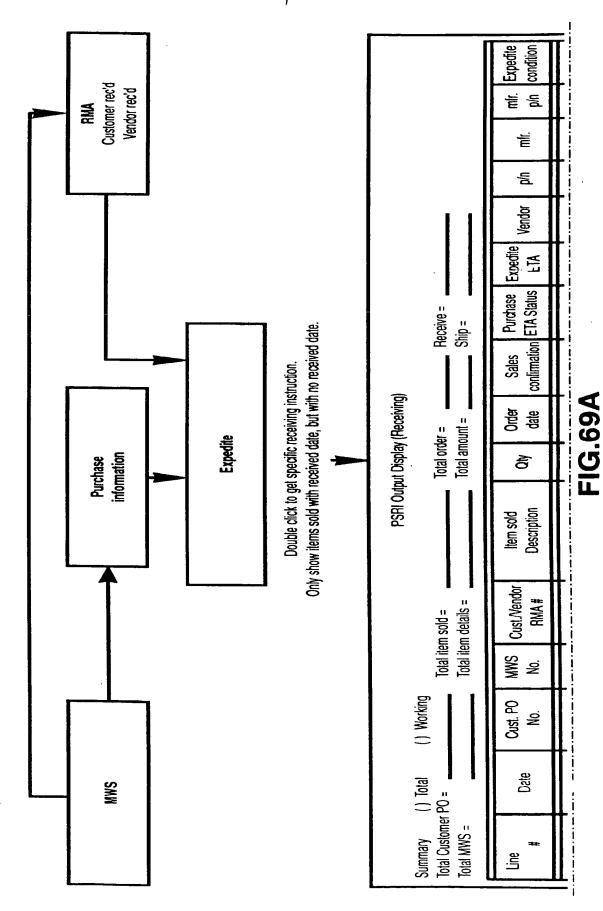
Fig. 68C

		ı
	Existing status can be ordered	
	Existing status can be received	
	Existing status can be shipped	
	Existing status can be installed	
	RMA installation note:	
		$\neg$
		•
otes from vendor file	Shipping note:	
	1	

Fig. 68D

Fig. 69

Fig. 69A	Fig. 69B	Fig. 69C
----------	----------	----------



					Compaq SCSI HD		11,00,027		Hold				<u> </u>
	10/11/97	1996-WA	28515		Critical	6	11120131	Credit card	Note	Techdata	ata   12345	12345 Compaq	
	10/44/07	AEEC MIV	20515		Compaq proliant	76	11/20/07	i	Refuse				
7	10/11/9/	V#4-0001	20313		Track	7.1	15031			Techdata	13554	Сотрас	
			9,100		Compaq memory	Ę	11/10/07		stock				
m	10/11/97	Losp-WA	çıç <u>8</u> 2.			≥	5		,	Merisel	13554	Compaq	
	F0.55/03	10777	70115		HP Vectra	·	10007		Ж	l grand			
4	/8/11/01	444FB	20413			ŝ	11/20/3/1	000		Micro	13554	全	
	64.50	10,777	00415		нР тетогу	7	16/14/11		¥		4055	9	
<u></u>	/6/11/01 —	1444PA	C1 407			-				Microage	Je 13334	=	
·			37700		HP Printer	200	11/19/07		Ж	Commit		<u> </u>	
Φ.	10/11/9/	1444PA	70413		Drop Ship	2002	1671111		Note	land	13554	<del>L</del>	-
	<u></u>	= All headings are sortable.	table.										
* All items are	selectable and	' All items are selectable and expand (double click) into item deails.	click) into it	em deails.	* Replacement MWS = Red color	MWS = A	ed color						

## FIG.69B

1. Expected to receive will exclude refusal items.

Expedite

Re-order)

Expected to ship will exclude refusal items, hold items and items with COD/cash tem.
 Batch input for all packing slips and items. The system automatically match input with items that existing in the system to all items that received.

**FIG. 70** 

FIG. 70A	FIG. 70B	FIG. 70C
----------	----------	----------

Company - PO	MYSNum	Qty	Ord	Revd
PACBELL ISG	M-930008 NoP	1	1	1
3 items 930107	1/7/93 Orig	Shipd	3/22/93	3/22/93
3 DON BAKER PG.510	-806-7459		***************************************	TBD
LOCKED	·			
Jet Propulsion Laboratories	M-930003 NoP	1		
2 items 000635262	1/5/93 Dest	Shipd		
1 Deborah Williams (81	8) -397-7184			ot Ordered R
LOCKED			Cust	omer (66/60
	M-930008 NoP	1	ORAC	
3 items 930107	1/7/93 Orig	Shipd	ORAC	***********
2 DON BAKER PG.510	-806-7459		ORAC	
LOCKED			) besites	ON GRAPHICS .
		1		n Systems
930107	1/7/93	Shipd	, <b>7</b>	ntec Corporati
1	······································		Suma	ntec Corporati
LOCKED			]	<del></del> -
BEEBOY FILE	M-930007 NoP	1		
5 items XXXXXXX	1/6/93 Orig	Shipd		
5 MAUDELLE(415) 751-	4020	******		
LOCKED			is old	er than
		1	711,	(Customer)
xxxxxx	1/6/93	Shipd	CPri	ority √
4		*****		Desori
LOCKED	•			
		1	7	
xxxxxx	1/5/93	Shipd	TH	
3				
LOCKED			_	
FUUITSU-ICL SYSTEMS, INC.	M-930002 NoF	1		
	12/29/92 Orig			
1 Gerry Binkhorst (40)		4444		
LOOTH EEF				
BEEBOY FILE	M-930007 NoP	1	1	11
5 items XXXXXXX	1/6/93 Orig	Shipd		pecial priority
2 MAUDELLE(415) 751-				Стргиа
LOCKED				
[AT]			_	
c. <u>#^</u>	) [T] <b>@</b>	HE	3	
	/ LET 🧲		<b>3</b>	
Sort	Sets S	earches		
4				

**FIG. 70A** 

ihipd	Des	cripti	on				$\Box$	Cost		Price
1	CAE									
3/22/93							<u></u>			8.00
•-•-			************************			••••••			************	
							=			<u> </u>
				No	t Rece	eive	d F	lepor	[ 12/3	/9/
port (	) No	t Recei	ved Report	• 0	Not S	hipp	ed	Report	0	Drop
)(1)		P0*			Qty	Or	_	Revd		
		21519	8		5	10		~		
		21548	7		13		2%	) · · · · · · · · · · · · · · · · · · ·	0%	
		21561			<del></del>	10		0% 10%		
		21566 01C10				10		0%	0%	******
<u>vc</u>		66030				10	****	***************************************	85%	
n		12592				10		<b>6</b>	93%	
<u>n</u>		12598					5%		0%	7
								<u> </u>		<u></u>
Ves	On	Cust P	<u>0 (1)</u>	M	YS			pe	Qty	Ord
Age	{	PPS072	082	M	96-228	75	Cu	s-pOK	5	<u> </u>
days	<b>-</b>			_ _			ļ			
							<del> </del>			+-
Notes )							<u>!</u>			<u></u>
O 4 MILE	• •									ino d
Get MYS	s )		Uan-Céri	U DN	IO-M P	Mo	Or	d-Rev		י-טץ
Get MYS	<u>.</u>		Yen-Ctrl	Y PN	lo-M P	No	Or	d-Rev	đ	PO-0
	(ر:		Yen-Ctrl	V PN	lo-M P	No	Or	d-Rev	đ	PU-1
	ارية		Ven-Ctrl	Y PN	lo-M P	No	Or	d-Rev	đ	PU-I
	5_)	-	Yen-Ctrl	Y PN	Io-M P	No	Or	d-Rev	d	PU-I
	5_)		Yen-Ctrl	Y PN	Io-M P	No	Or	d-Rev	<u>d</u>	PO-
	s )		Yen-Ctrl	y PN	Io-M P	No	Or	d-Rev	<u>d</u>	PO-1
	<u> </u>		Yen-Ctrl	V PN	Io-M P	No	Or	d-Rev	d	PU-
			Yen-Ctrl	Y PN	Io-M P	No	Or	d-Rev	d	
	<u> </u>		Yen-Ctrl	Y PN	Io-M P	No	Or	d-Rev	d	
			Ven-Ctrl	V PN	Io-M P	No	Or	d-Rev	d	
			Ven-Ctrl	y PN	Io-M P	No	Or	d-Rev	d	
			Ven-Ctrl	V PN	Io-M P	No	Or	d-Rev	d	
tion					Io-M P	No	Or			
			PLE COMPU		Io-M P	No	Or		41951	
tion					Io-M P	No	Or			
tion					Io-M P		Or			

FIG. 70B

Expedite Status – exp	da	ite – cust notes	CSR Not	es L	ľ
ignore on future reports cw			FHJFHJG		
<u></u>		••••••			
1:39 AM			=		l
hip Report Filters (	On J				ı
					1
Customer Filter (	)n	Urgent	:		1
At least		Vrong Produ			
Percent Filter On		Replacement Hand Divr		····	
Oty is or less		Cancelled			Į
Otu Filter Do		in Transit			1
₩ More than days	•	Vendor follow			
Age Filter On	OIG	Installatio			
		Back order			
Royd Shpd 4 4	_	Partial shi	<u> </u>		
	╁	Shipped			
		Drop shippe			ı
	Ļ	Lost in trans			ı
F	X	Vill call			l
-A Expedite Status	Т	On allocation	<u>,,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,, ,,</u>		
	$\vdash$	Discontinue			l
		Direct ship from	Mafetr		١
		Not released new	product		l
		No record of a		•••••••••••••••••••••••••••••••••••••••	
		Open source red		•••••••	1
***************************************		Open source cor			l
		Ship to wrong a			ı
	`` <u> </u>	ignore on future		· · · · · · · · · · · · · · · · · · ·	
:	+-	Other			ı
00/00/00	·····	***************************************	•••••••••••••		ł
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					1

**FIG. 70C** 

Fig. 71

Fig.71A	Fig.71B	Fig.71C

Company - PO	MYSNum	Qty	Ord	Royd	Shipd
PACBELL ISG	M-930008 NoF	1	1	1	1
3 items 930107	1/7/93 Ori	g Shipd	3/22/93	3/22/9	3/22/
DON BAKER PG.51	0-806-7459		***************************************	TBD	************************
Jet Propulsion Laboratories	·····;································				
2 items 000635262	1/5/93 Des		Not Order	ad Papar	t () N
1 Deborah Williams (8 LOCKED	118) -39/-/184		<del></del>		<u> </u>
PACBELL ISG		_	tomer (1		
	M-930008 NoP		ON BANK OF		
3 items 930107 2 DON BAKER PG.51	1/7/93 Ori	(.    ·····	ON BANK OF		* : ** ** * * * * * * * * * * * * * * *
LOCKED	0-806-7439	··• • • · · · · · · · · · · · · · · · ·	ON BANK OF		
LOURED		=	ON BANK OF		****************
			N BANK OF		*************
930107	1/7/93		N BANK OF	* * * * * * * * * * * * * * * * * * * *	
1	·····		N BANK OF		
LOCKED	<del></del>	UNIC	N BANK OF	• • • • • • • • • • • • • • • • • • • •	
BEEBOY FILE	M-930007 NoP	. <b>(</b>			<u></u>
5 items XXXXXXX	1/6/93 Orio				
5 MAUDELLE(415) 75	1-4020	.		<u>_</u>	Yen On
LOCKED		╛┞┈		🗆	Age On
		. Is oid	der than	days	:
XXXXXXX	1/6/93		Custor	ner Notes	$\odot$
4 LOCKED		Pr	riority √	) Get l	MYS )
LOCKED		<b>-</b>	Des	cription	
	1/6/93			• • • • • • • • • • • • • • • • • • • •	
3		.			
UJITSU-ICL SYSTEMS, INC.	M-930002 NoP		•••••••••••••••••••••••••••••••••••••••		
l items 11613	12/29/92 Orig	1			
1 Gerry Binkhorst (40	08) 982-3350	11			_
LOCKED	*************************	1		·····	
BEEBOY FILE	M-930007 NoP	1			
5 items XXXXXXX	1/6/93 Orig	1	····		***************************************
2 MAUDELLE(415) 751	-4020	11			
	***************************************	ি	mi Billia		
LOCKED					
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LOCKED			<b>3</b> ]		í
LOCKED					(
LOCKED C. A. Sor	t Sets	Searche			C Reti

**FIG. 71A** 

		Price	Ex
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-43	1:43		00/
_		Drop	ship
	Shpd	Age	
0%	0%	63	
*******	0%	42	=
	53%	••••••	•••••
••••	81% 87%	21	
	098	10	••••
	0%		
0%	0%	2	
12%	42%	,	心
		[	$\Box$
tu	Qtu	Ord	Re
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9	9	8	
1	1	1	
15	15	15	
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•		*******	**********

RelatedSwitch QuickSwitch

**FIG. 71B** 

	xp date – cust notes	CSR Notes	
nore on future reports w	:	FHJFHJG	_
			•••••••••••••••••••••••••••••••••••••••
0/00/00			
ip Report Filt	ers On	***************************************	
		***************************************	
Customer Est			
	ter On		-
At least			•
Percent Filte	er On		
Qty is or 1	ess		7
Qty Filter On	.   []		
	days old	***************************************	
Age Filter Or	. 11		
	<u>'</u> ]		
ovd Shpd	<u> </u>		
18 0 4 0	<u>P</u>		
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	K\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\	94 144 <b>II</b> I 194 <del>0 1940 1840 1840 184</del> 0 1840 1840 1840 1840 1840 1840 1840 184	
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	্ব <b>্</b>	······································	
	III U	**************************************	

**FIG. 71C** 

Fig. 72

Fig.72A	Fig.72B	Fig.72C

Company - PO	MYSNum	Qty	Ord	Revd	Shipd
PACBELL ISG	M-930008 NoP	<del></del>		1	3 inpu
3 items 930107				7/22/97	
3 DONRAKER P	1/7/93 Orio G.510-806-7459	Snipa	: 3/22/33	TBD	3/22/73
LOCKED			**********************		
Jet Propulsion Laboratori	es M-930003 NoP	1	1	1	1
2 items 0006 <b>352</b> 62					
1 Deborah William	ns (818) -397-7184	i ompa.		CmpLnd	HAYS-1527
LOCKED		·· <del>L</del> · · · · · · · · · · · · · · · · · · ·	****		
PACBELL ISG	M-930008 NoP	1	1	1	1
3 items 930107	1/7/93 Orig		· · · · · · · · · · · · · · · · · · ·	3/22/93	3/22/93
2 DON BAKER P	G.510-806-7459		·····	CmpLnd	HPCD-1622
LOCKED			*********************		
		1	1	1	1
930107	1/7/93	Shipd	3/22/93	3/22/93	3/22/93
1			······································	CmpLnd	HPCD-E440
LOCKED					
BEEBOY FILE	M-930007 NoP	1	1	1 1	1 1
items XXXXXXX				3/22/93	7/22/97
5 MAUDELLE(415	751-4020	Sinpa	. 3/22//3		APPL-1034
LOCKED		··········		Стрыц	AFFL-1034
		1	<u> </u>	1	1
XXXXXX	1/6/93	Shipd	3/22/93	3/22/93	3/22/93
4				CmpLnd	APPL-H14
LOCKED					
		1	1	1	1
XXXXXXX	1/6/93 -	Shipd	3/22/93	3/22/93	3/22/93
<u></u>	77 1-124- 407 1-0			CmpLnd	APPL-H142
LOCKED					
UJITSU-ICL SYSTEMS, IN	C. M-930002 NoP	1	1	1	1
items 11613	12/29/92 Orig	Shipd	6/3/93	3/22/93	3/22/93
1 Gerry Binkhors	t (408) 982-3350	4444		MicroD	307535
LOCKED					
EEBOY FILE	M-930007 NoP	1	1	1	1
items XXXXXXX	1/6/93 Orig	Shipd	3/22/93	3/22/93	3/22/93
2 MAUDELLE(415)	751-4020			CmpLnd	APPL-A08
LOCKED					
······		1	1	1	1
	RA _ @	A	93	1 _ 1 1	-
<del></del>			<u> </u>		( <u> </u>
	Sort Sets S	earches	1		Return

**FIG. 72A** 

Desor	iption	Cost	Price	E
CABLE				łg
······································		<u> </u>	8.00	C.
i				
		<del></del>		0
ULTRA	144, 14400BPS, EXT, V32 BIS	554.28	3	В
			595.00	C,
3	336	08-00	/13	
		-		0
	CRIPT LEVEL II CARTRIDGE F/LJ	404.76		In
IIIP, III			450.00	C.
3	338	C2089		
				_0
LASE	Select a status			
SERIA	select a status			
······	Status			]
_				1
MAC	Cancelled			
RCHR	Credit hold		- 1	l
	Direct ship from Mnfctr		1	
	Discontinued			
RECH	Drop shipped			
SYST	Hand Divr			
	Ignore on future reports			
	Installation			]
700	Lost in transit			
HAL	No record of order			
SYST	Not released new product			
	On allocation -		Ì	
	Open source complete			l
QEMN	Open source required		1	
	Order hold			
	Other		1	ļ
	Partial ship			ĺ
POWE	Replacement			
33MH	Ship to wrong address			
	Shipped			
3	Urgent Vendor follow up			1
	Yrong Product			
	in vily i roude (			1
; ;				•
<b>D</b> <sub>6</sub> , ]				
Rel	Cancel	OK	li li	

FIG. 72B

xpedite Status - exp date - cust notes	CSR Note	1
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ore on future reports		
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**FIG. 72C** 

Fig. 73

Fig.73A Fig.73B Fig.73C
-------------------------

RMA- Orig-P	r Case No	CS I	ExCr-RCred	Ven-RMA®	Ship-Rov
R-265798RP	Temp245	63-1	NoCredit	compaq	NA!
Nemesio.co	c 5/6/97			97050607801	NA!
				Warranty repa	ir
	5/14/97	05/06	/97 DOA PRO	DUCT : PROVIDIA	AN (drop sh
R-265876RP	Temp247	84-1	5,996.70 *	Microage	5/12/97
Brandon.aa	5/6/97	<u> </u>	5,996.70	716376	NA!
				Credit ·	
	<b>5/7/97:</b> c	inder M	WS#24784,	740cdt is transi	erred from
R-265914	Temp248	33-1	8,449.00		5/9/97
Brandon.aa	5/8/97		8,449.00	4984009	NA!
	_			Credit	
		-		LED THE ORDER	
R-266068	Temp248	33-2	759.00	Merisel	5/9/97
Brandon.aa	a 5/8/97	<u></u> .	759.00	(4984009	NA!
_	_			Credit	
<u> </u>	<del>-</del> 1			LED THE ORDER	,
R-266177	Temp248	33-3	13,524.00 *	Merisel	5/9/97
Brandon.aa	ia (5/8/97		13,524.00	4984009)	NA!
_	<b>-</b> .			Credit	
2005				THE CUSTOMER	
R-266295	Temp248	33 <b>-</b> 3	•• • • • • • • • • • • • • • • • • • • •	Merisel	5/9/97
Brandon.aa	a J5/8/97	}	67.50	4984009*	NA!
г-	7 5 40 407 7	اللا	TOMER CANCE	Credit	NE ARE C
R-266 <b>3</b> 74	Temp248		2,508.00	LED THE ORDER	, WE ARE 0
	5/8/97		<del></del> .	*4984009	NA!
Dr angon.a.		<u></u>	2,308.00		1
<b>6</b>	tions	BA	<b>□</b>		
□ Ver	ndor Inv	لي	2		ليتيا
PR= printed CS=	cross Shpd	Sort	Sets (	Searches Ne	w Records
5					

RMA: 7 of 3186 (Sales-MW€					
Cust-Cust PO®-Faxed	Rcy-Shp	Inv-Crd	Qty	Description	
FIRST DEPOSIT	NA!	13143	1	ARMADA 4131T 5/133 16	
19497-40167-N	NA!	3,628	0	NB 41 00	
Dispatched On-Site warran	ty service	No Credit		DOA	
			IGH CO	MPAQ. COMPAQ WILL REPA	
NETWORK GENERAL CORI	5/12/97	13381	1	TECRA 740CDT PENT-166	
86091	5/12/97	6,195	<u> </u>	13.3 TFT 10X	
Warranty repair/exchange		No Credit		DOA	
nv*233828. the item is DO	A. we will	replace wit	h inver		
MEDIATEL ( TODD MART	NA!		1	NETSERVER LH2 6/200 M1	
SF970225	NA!	27,805	0		
Not shipped to customer		No Credit			
JING TO RETURN AS WRONG	PRODUCT R	ECEIVED .			
MED A I ATEL (TODD MAR 🛛	NA!		1	64MB MEM. EXP. MODULE I	
SF970225	NA!	NC	0	`	
No credit/no exchange		No Credit			
ING TO RETURN AS WRONG	PRODUCT R	ECEIVED .			
MEDIATEL (TODD MARTI	NA!		6	HOT SWAP DRIVE, 9.0GB,F	
SF970225	NA!	NC	0		
No credit/no exchange		No Credit			
HE ORDER , WE ARE GOING T	O RETURN	AS WRONG	PRODU	CT RECEIVED .	
MEDIATEL (TODDD MAR 🛛	NA!		1	ETHEREXPRESS 10/100 PC	
SF970225	NA!	NC	0	B	
No credit/no exchange		No Credit			
ING TO RETURN AS WRONG	PRODUCT R	ECEIVED .			
MEDIATEL 🛛	NA!		1	SURESTORE 12000E AUTOL	
SF970225	NA!	_NC	0	SCSI 4MM DDS-2 W/MANI	
		J - 10			
	1	<sub>⊷</sub> اہے	Appi	rove Reset	
Return RelatedSwit	ch QuickS	witch	ot ap	Proved   Not Required	

	Repl MVS			
1B 1400 12.1 IN CTF				
	Reqd	Rele ased		
Hardware - Oth	<del></del>	Closed		
R. COMPAQ CASE # 1		1 KYBC		
MX 2.02GB 16MB				
	☐ Regd 🛛	Rele ased		
Hardware - Oth	T	Closed		
e s/n*03720765,		<del></del> .		ı
64MB RAM	1			
	Regd	Released		
	T	Closed		
		-		
NETSERVER 60NS	1			•
	Regd [	Released		
	104	Closed		
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NETSERVER				
	Regd	Rele ased		
	<u> </u>	Closed		
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X ENET MODEL				
	Regd	Released		
		Closed		
•		10.0011		
ADER EXT 48GB				
L,CABLE	☐ Regd ☐ I	Released		
Close	Royd CM	Royd VCM	Release MYS	
Cancel	Create CM	Create VCM	Set NAs/Cred	

**FIG. 73C** 

DMA Case No	Temp65-1 Date 5/4/98	Vendor RMA No.
Customer	SAN FRANCISCO SYMPHONY	Tel: [(415) 552- 8000 FAX: [(415) 431- 6857
Address Bill To click button to toggle bill/ship	SAN FRANCISCO SYMPHONY DAVIES SYMPHONY HALL San Francisco, CA 94102 Attention: DAVID MURDOCH	Buyer: Tel: FAX [ User: FAX [
MYS No.	M93-0065 Orig Sales rep Pat SUSAN2993 Sales rep Pat	p Pat CSR PaulB p Pat Date Purch 3/22/93
<b>Oty</b> : 1	Desc: WORDPERFECT 5.1 + FILE SRV	Customer vill pag partial
Orig Rev D	Rev D Orig Ship D Serial No Misc II	Return type
		Reason
	4	Detail
Explanation and Notes	nd Notes	Unit price 255.00 RMA total price 255.00
		Rstk S
		Replacement PO Replacement MYS:
		Solution in the second
	PIC	

		RMA: Add record
Customer ( Key Words ) RMA No	Call Tag Number	
Return type	Rstk SE Rsti	Rstk Chrg
Reason Claim Req	Credit memo	No.
Detail	Date 00/00/00 Amount	nt
Replacement PO Replacement MVS:		Reset
-	Mante PNo Unit	Unit price
<b>0</b> ¢ 0/0	Ven RM.	RMA total
Orig Rev D. Orig Ship D. Serial No. Misc ID 1 Misc	ID 2 Revd Frm Cu Ship To Ven	o To Ven Royd
		-
		× •
Vendor  □ Not applicable   RMA (Cros	Cross Ship Call tag	
Return type	Expected Credit	Royd
	P Credit Memo Date Vou	Voucher® Credit ▲
Reason	5/4/98	
Detail		
Rstk % No Credit Expected		•
	RMA Vendor  Customer Claims	

FIG. 75

Fig. 76

Fig. 76A	Fig. 76B	Fig. 76C
----------	----------	----------

V = Vendor whom we bought from or mfr of product. C = Customer

**FIG.76A** 

Spectrum of N/A 1. If received, ship, daim & credit = NA, then return type must be equal to Not Applicable.

Return type/Action	pe/Action	Activo	Repair/ replace	Service On-site	opsige age	\$ Additional		Mfr. or vendor	BWA:	Rec'd				Cust.Orig.	Fax retum	E-mail miffication	Show	Red W. K	
(C & V)	<u>S</u>	DATE OF THE PARTY	part #		Charge	герал Сћагде	Orop Ship	Drop Ship Cross Ship		>	>	>	>	pbe	æ æ	ioneono.		2	
1. Credit ICheck	heck	>- >-	N N NA	NA NA	NA NA	NA NA	N. N.A	NA NA		N/A	N/A		N. N.A	N/A Y	>- >-	<b>&gt;</b> >	<b>&gt;-</b> >-	z	> 0
	Credit card	<b>&gt;-&gt;</b>	N N	N N N A	N N N	NA NA	N N N	NA NA		Ž	Ϋ́	-	N AN	NA >-	<b>&gt;- &gt;-</b>	<b>&gt;- &gt;-</b>	<b>&gt;</b> >-	z	> U
	Credit memo	<b>&gt;</b> >	¥ × ×	NA NA	N/A N/A	NA NA	NA NA	NA NA		N/A	N/A		¥ ¥	N/A Y	<b>&gt;-</b> >-	<b>&gt;- &gt;-</b>	<b>&gt;- &gt;-</b>	z	ں <
2. Exchange Mirror C & V	> er =4	<b>X</b>	NA	N/A	NA	N/A	N/Y	٨W		NA	N/A		A A	N/A Y	>-	>-	>-	>-	> U
3.Repair/replace (on/off site)	lace								: -										

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¥ ¥	≸ ≸	<b>₹</b> ₹	N. X.	NA NA	N N N N	X X	N N N N
<b></b>		<b>₹</b> ₹	K K	N'A N'A	N N	NA A	N'A N'A
₩.X.	¥ \$	<u></u>	Y.N.	N'A N'A	N N N A	X X	N'A N'A
> >	> >	<b>&gt;</b> >	<b>&gt;</b> >	<b>&gt;</b> >	> >-	>- >-	>->-
Mirror Under warranty C & V part/exchange	Under warranty part not req'd	Out of warranty part required	Out of warranty part not req'd	4. Ship lwrong address	Refused	Lost	Ship damaged
Mirror C & V				- Ship			·

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> U	> U	> U	> U	<b>&gt;</b> U	> U	> U	> U
>-	Z	Z	Z	Z	Z	Z	
N'A N'A	N/A N/A	N/A N/A	NA NA	N/A N/A	NA NA	NA NA	<b>&gt;</b> >
N N A A	>- >-	NA NA	N/A N/A	NA NA	NA NA	N/A N/A	<b>&gt; &gt;</b>
ă ă	>->-	N'A N'A	N'A N'A	NA NA	N/A N/A	NA NA	۲ ۲
NA ≺	N. Y	N/A	N N	N S	N N	N/A	N/A N/A
N NA	N'A N'A	N'A N'A	NA NA	N/A N/A	NA NA	NA NA	
N N		WA		N'A N'A	WA	NA NA	
N.	WA	NA	NA	NA NA	NA	NA NA	
X X	N/A	NA NA	N/A N/A	NA NA	N/A N/A	N/A N/A	
N/A				NA		NA NA	
X X	NA NA	N/A N/A	NA NA	N N	NA NA	NA NA	YN
X X	N AN	N N	N/A N/A	N. N.A	N/A N/A	N/A N/A	N/A Y/N
N.Y.	N/A N/A	N/A N/A	NA NA	N N N	N/A N/A	N/A N/A	Y.N.
N N	N N	NA NA	NA NA	N N	N'A N'A	N/A N/A	YN
X XX	N/A N/A	NA NA	N/A N/A	N/A N/A	N'A N'A	N/A N/A	XW XW
N. X.	N N N'A	N/A N/A	N/A N/A	Ν. Κ. Κ. Κ.	N/A N/A	N/A N/A	Y.N.
>->-	<b>&gt;- &gt;-</b>	, <del>,</del> ,	<b>&gt;- &gt;-</b>	<b>&gt;</b> >	<b>&gt;</b> >	<b>&gt;</b> >	<b>&gt;- &gt;-</b>
missing components	Duplicate ship	Іпчентогу	Cancel order/shipment	Transferred order	Never ship to customer	6. Not applicable	55
			5. Never	ship, I stay in I ware- I	- asnou	6. Not	7. Other

Fig. 77

|--|

Limit File (Customer or Vendor) Auotmatic Approval Intelligence

						Groups				
			Mfr.		Vendor	lor		Customer	mer	
Return lype/Action (C & V)	Allow auto Approval	Mfr. Allow Return	Mfr. allow Open Box	Exceed Mfr. allow max Time Duration	Exceed Vendor allow max.time Duration	Vendor Restock Fee	Exceed Customer Allow time duration	Charge Restock fee	exceed Sprice limit	Charge Service fee
1. Credit ICheck	>-	λ-	<b>,</b>	Z	N	NA	N	Z	Z	N/A
Credit card	٨	γ	Z	>	Z	NA	Z	Z	Z	N/A
Credit memo	Z	Z	N/A	N/A	N/A	N/A	N/A	N/A	NA	N/A
2. Exchange Miror C & V	<b>&gt;-</b> >-	>-	22	22	zz	NA NA	Z	z >	z z	N/A N/A

3.Repa (on/o	3.Repair/replace (on/off site)										
Mirror C & V	Mirror Under warranty C & V part/exchange	>-	N/A	N/A	Z	N/A	N/A	N/A	N/A	N/A	Z
	Under warranty part not req'd	λ.	NA	N/A	Z	NA	N/A	N/A	N/A N/A	N/A	<b>\</b>
	Out of warranty part required	Y	N/A	N/A		NA	N/A	NA	N/A N/A	N/A	>-
	IOut of warranty part not req'd	<b>,</b>	N/A	N/A	Z	N/A	N/A	N/A	N/A N/A	N/A	>-
4. Ship	4. Ship Iwreng address	<b>,</b>	N/A	N/A	N/A	N	NA	N/A	ΝΑ	N/A	N/A
	l I Refused	>-			N/A	Z	N/A	N/A	N/A	N/A	ΝΑ
	Lost	<b>&gt;</b>			N/A	Z	N/A	N/A		N/A	NA
_ :											

	I Ship I damaged	>-	N/A	N/A	Z	Z	N/A	Z	N/A	N/A	NA
	l missing components	>	NA	N/A	Z	N/A	N/A	Z	ΝΑ	N/A	N/A
	Duplicate ship	<b>/</b>	N/A	N/A	λ	:	NA	N/A	>	N/A	NA
	Inventory	λ		N/A	N/A	N	NA	N/A	N/A	N/A	N/A
5. Never	Cancel order/shipment		N/A	N/A	N/A	N	N/A	N/A	V/A	NIA	N/A
ship, stay in 1 ware- 1	Transferred I order	>-			N/A			N/A		X.	N/A
house	l Never ship to customer	٨	N/A	NA	N/A	Z	N/A	N/A		N/A	N/A
6. Not	6. Not applicable	Å	N/A	N/A	N/A	Z	N/A	N/A	N/A	N/A	N/A
7. Other	oj.										

FIG.77C

Fig. 78

Fig. 78B
----------

Customer File Auto RMA Approval Automatic Approval Criteria

		. <u> </u>				
Exceed agreed return period	Days	Days	Days	Days	Days	N/A
Excoed \$ return fimit	Amount	Amount	Amount	Amount	Amount	N/A
Service fee for On-site	Range/Y/N	Range/Y/N	Range/YN	Range/Y/N	RangeY/N	Range/Y/N
S price тах	Range			Range	N/A	N/A
Max allow time = Vendor max time	NA		WA	ΝΑ	NIA	N/A
Restock Fee	Range	Range	Range	Range	Валде	NA
Preset time allow between Orig. ship date & RMA request date			Range	Range	Range	N/A
Return type/Action (C & V)	1. Credit Check	: <b>-</b>	l Credit memo	2. Exchange Mirror C & V	3.Repair/replace (on/off site)	Mirror Under warranty C & V I part/exchange

FIG.78A

	l required								١
	Under warranty part not reg'd	N/A	NA	NA	NA	Range/Y/N		N/A	
	Out of warranty part required		N/A	WA	N/A	Range/Y/N	NA		
	Out of warranty part not req'd	N/A	N/A	N/A	N/A	Range/Y/N	N/A	N/A	
4. Shi	4. Ship wrong address	N/A	N/A	NA	N/A	NA	NA	N/A	
			N/A	N/A	N/A	NA	NA	N/A	
	Lost	Range	NA	N/A	N/A	NA	NA		
	:		N/A	N/A	N/A	NA	N/A	N/A	
	missing components	Range	N/A			NA	NA	NA	
	i Duplicate	Range	NA	N/A	N/A	NA	NA	N/A	1
į	! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! ! !		!   !   !   !						1

	Ship	ship						
	I Inventory	N/A	N/A		N/A	N/A	N/A	NA
5. Never	5. Cancel Never 1 order/shipment			N/A	N/A	N/A	V/N	N/A
ship, stay in ware-	Transferred order	N/A N/A	N/A	N/A	N/A	N/A		
house	house 1 Never ship to customer		N/A		N/A	N/A		NA
6. Not	6. Not applicable	N/A	N/A	N/A	ΝΆ	N/A	N/A	N/A
7. Other	<b>5</b> 0							

# New rules:

- 1. Return type must be create in duplicate (pair) for Vendor & Customer (V & C).
- 2. Allow changes only of return detail on either V or C. One return detail must remain unchanged (creation keys).
  - 3. Return type can be different for vendor & customer on the same RMA.
    - 4. Option to block use of any return type.
- Original ship date as guide for proper selection of return type.
   Create default ...up initially.

Fig. 79

Fig. 79**A** 

### Vendor File Auto RMA Approval Automatic Approval Criteria

	type/Action C & V)	Return allowed	Allowable Max date vendor time	Restock Fee
1. Credit	Check	Y/N	Limit	Range
	Credit card	Y/N	Limit	Range
	Credit memo	Y/N	Limit	Range
2. Excha Mirror	nge C & V	Y/N	Limit	Range
3.Repair/r (on/off si	ite)	Y/N	N/A	N/A
Mirror U C & V p	Inder warranty part/exchange required	. Y/N	N/A	N/A
	Inder warranty part not req'd	Y/N	N/A	N/A
	Out of warranty part required	Y/N	N/A	N/A
Out of warranty part not req'd		Y/N	N/A	N/A
4. Ship   v	vrong address	Y/N	Limit	Range
 	Refused	Y/N	Limit	Range
1	Lost	Y/N	N/A	N/A
	Ship damaged	Y/N	Limit	Limit

FIG.79A

	missing components	Y/N	N/A	N/A
	Duplicate ship	Y/N	N/A	N/A
	inventory	Y/N	N/A	N/A
5. <b>Neve</b> r	Cancel order/shipment	Y/N	N/A	N/A
ship, stay in ware-	Transferred order	Y/N	N/A	N/A
house	Never ship to customer	Y/N	Limit	Limit
6. Not	applicable	Y/N	N/A	N/A
7. Othe	er			

#### New rules:

- 1. Return type must be create in duplicate (pair) for Vendor & Customer (V & C).
- 2. Allow changes only of return detail on either V or C. One return detail must remain unchanged (crea
- 3. Return type can be different for vendor & customer on the same RMA.
- 4. Option to block use of any return type.
- 5. Original ship date as guide for proper selection of return type.
- 6. Create default setup initially.

Fig. 80

Fig. 80A

Fig. 80B

## Mfr. File Auto RMA Approval Automatic Approval Criteria

	n type/Action (C & V)	Return allowed	Open return allowed	Max time to return	Max time to Warranty service on-site	Max time to Warranty service off-site
1. Credi	t I Check	Y	Y/N	Limit	N/A	N/A
	Credit card	Y	Y/N	Limit	N/A	N/A
	Credit memo	Y	Y/N	Limit	N/A	N/A
2. Exch	ange or C & V	Υ	Y/N	Limit	N/A	N/A
3.Repail (on/off	r/replace site)	Y		Limit	N/A	N/A
Mirror C & V	Under warranty part/exchange required	Y	N/A	N/A	Limit	Limit
	Under warranty part not req'd	Υ	N/A	N/A	Limit	Limit
	Out of warranty part required	Υ	N/A	N/A	N/A	N/A
	Out of warranty part not req'd	Υ	N/A	N/A	N/A	N/A
4. Ship	wrong address	Υ	N/A	Limit	N/A	N/A
	Refused	Y	N/A	Limit	N/A	N/A
	Lost	Υ	N/A	Limit	N/A	N/A
	Ship damaged	Υ	N/A	Limit	N/A	N/A

FIG.80A

	missing components	Υ	N/A	N/A	N/A	N/A
	Duplicate ship	Υ	N/A	Limit	N/A	N/A
	Inventory	γ	N/A	Limit	N/A	N/A
5. Never	Cancel order/shipment	Υ	N/A	Limit	N/A	N/A
ship, stay in ware-	Transferred order	Υ	N/A	N/A	N/A	N/A
house	Never ship to customer	Y	N/A	Limit	N/A	N/A
6. Not	applicable	γ	N/A	Limit	N/A	NA
7. Othe	or .	Υ	N/A	Limit	N/A	N/A

### New rules:

- 1. Return type must be create in duplicate (pair) for Vendor & Customer (V & C).
- 2. Allow changes only of return detail on either V or C. One return detail must remain unchanged (creation keys
- 3. Return type can be different for vendor & customer on the same RMA.
- 4. Option to block use of any return type.
- 5. Original ship date as guide for proper selection of return type.
- 6. Create default setup initially.

your return request(s) have been approved.

R-232421 is your RMA number.

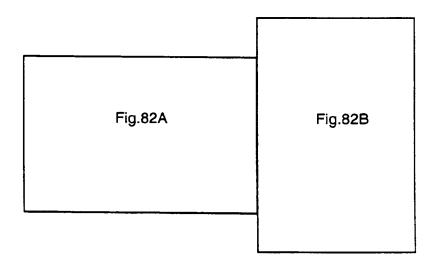
Please remember to check replacement option when you are ready to submit your replacement order. If you want to exchange for a new product, please click Products below.

Please use the following links if you wish to leave the current screen and move on.

Home

FIG. 81

Fig. 82



TaxRegister	it		2nd Ot	2nd Qtr 1996		ď	Pay
						<u></u>	Recalc/Sets
State CA	Period 4/1/96 - 6/30/96		<b>Amount Due</b>	ue	25,636.00	01	
	Chan	Change End Date	Amount Paid	aid			
Line	item						
					-	2 8 =	
	Purchases subject to use tax	se tax	***************************************			4,116,0	
	Cotoc to other retailers for burboses of resale	s for purposes of resa	le		15,335.00		
	Nontaxable sales of food products	od products					
	Nontaxable labor (repair and installation)	ir and installation)			10,001.00		
	Sales to the United States Government	tes Government		••••	524.00		_
	Cales in interstate or foreign commerce	oreian commerce			683,602.00		
	Sales tax (if any) included on line	ded on line 1			261,059.00	Þ	
Date Date	Citu	County	Zip	Net Sale	Customer		1
	96/	Sunnyvale	94086				
\$							
5/		Sunnyvale	94086				i
\$	Internal use: 1,687.58						
4/	4/1/96 Redwood City	Redwood City	94065	4,042	4,042.00;0RACLE		_
	5	PS Billed: 333.47					
	4/1/96 Redwood City	Redwood City	94065	5,940	5,940.00 OR ACLE		
3	٤	es Bilhed: 490.05					
14/	4/1/96 San Francisco	San Francisco	94105	8,583	8,583.00 FIRST DEPOSIT	11:	Þ
	- C-1 O 4/2 E/L T	- D3065 1 1110 -	- Andreas	90		•	4
		4:	4;				

FIG. 82A

```
틀빈병
                            FORMULA OR FIELDS TO USE IN QUICK REPORT OF SALES TAX FILE
          LINE
                       __GrossSale - PriceCredit
| Line 1(Col4):_
 Line 2(Col4):_____InternalUse
                _____ Line1(Col4) + Line2(Col4)
 Line 3(Co14):___
                   _____ Resale+ResaleAdjust
 Line 4(Co13):___
 Line 5(Co13):_____FoodProducts + FoodAdjust
 Line 6(Col3):_____ Installation
 Line 7(Col3): GovernmentSale + GovernmentAdjus
 Line 8(Col3): OutOfState + OutOfStateAdj
 Line 9(Col3):_____SalesTaxBilled
 Line 10a(Col3):_____BadDebt
 Line 10b(Col3): ResoldintUse
 Line 10c(Col3):______ReturnedItems
 Line 10d(Col3):_____ Discounts
 Line 10e box 60(Col3):___not calculated
 Line 10e 61(Col3):____Line 10e box 60(Col3)*0.8333
 Line 10f(Col3):_____ Freight
 Line 11(Col4):_____ Sum of Line4(Col3) thru Line10f(Col3)
 Line 12(Col4):_____Line3(Col4) - Line11(Col4)
 Line 13(Col4):_____Line12(Col4) * 0.06
 Line 14a(Col4):_____ Line10e 61(Col3) + Line12(Col4)
 Line 14b(Co14):_____ Line14a 61(Co14) * 0.0025
Line 15(Co15):_____ Not calculated
 Line 16(Col4):_____Line14a(Col4) + Line15(Col4)
 Line 17(Col4):_____ Line16(Col4) * 0.01
Line 18(Co14):_____ CountyTax (Register gets amount from sum of Co18)
 Line 19(Col4):_____Line13(Col4) + Line 14b(Col4) + Line 17(Col4) + Line 18(Col4)
 Line 20a(Col4): OutOfStatTxPaid
 Line 20b(Col3): _____ CountyTaxableTt
Line 20b(Co14):_____ Line 20a(Co13) * 0.0075
 Line 20c(Col3): _____ County Taxable Tt
 Line 20c(Col4):_____ Line 20c(Col3) * 0.0075
 Line 21(Col4):_____Line 19(Col4) - Line20a(Col4) - Line20b(Col4) - Line20ca
 Line 22(Col3):_____ Actual prepayment from 1st prepayment register.
 Line 23(Col3):_____ Actual prepayment from 2nd prepayment register.
 Line 23(Col4):_____ Line22(Col3) + Line23(Col3)
 Line 24(Col4):_____ Not calculated
 Line 25(Col4):_____ Not calculated
 Line 26(Col4): _____Line23(Col4) + Line24(Col4) + Line25(Col4)
             Schedule A
Line A1(Col4):_____Line16(Col4)
Line A2/A3(Col4):_____GrossSale+InternalUse
Line A4(Col4): Line A1(Col4) - Line A2/A3(Col4)
Counties(Col3): County Taxable Tt
 Counties(Col6): Counties(Col3)
 Counties(Col7):_____ Tax Table
 Counties(Co18): _____ County Tax (Register gets from Counties(Co16) * Counties(Co17))
                                                                                       111
```

Fig. 83

Fig.83A	Fig.83B	Fig.83C

Invoice-Date-	Term-Type	Customer	¥ Customer PO
13195		ORACLE	
3/24/97	N3C	C. RODRIGUEZ	(415) 506-3209
Customer	*********	(415) 633-2945	238078
Printed	STxPaid	AR Posted R-263436	CR (Temp24620-1) Approve
13204		FIRST DEPOSIT	
3/26/97	N3O	LINDA	(415) 222-7669
Customer	DS	(415) 278-6045	19620-43935-1
Printed	STxPaid	AR Posted R-263681	RP (Temp24646-1) Approve
13231		APPLIED MATERIALS	3
3/31/97	N30	Denise Fritsch	(408) 563-1240
Customer	************************	(408) 563-5504	4500020574
Printed	STxPaid	AR Posted 5/8/97:	faxed inv. list to denise. 5
13261		CHEVRON INFORMAT	ION TECHNOLOGY
4/3/97	N/30	Melane Nock-Salgado	510) 842-0710
Customer	DS	510) 328-1710	FSRA 2006326
Printed	ST×Paid	R-264144	RP (Temp24618-3) Closed: 6
3300		Gasonics Internation	nal
4/9/97	N30		(408) 570-7366
Customer		(408) 570-7350	31646
Printed	STxPaid		XDM (Temp24712-1) Approv
3307		NETWORK GENERAL (	CORP.
4/10/97	N30		(415) 473-2061
Customer		(415) 327-3961	86035
Printed	STxPaid		**************************************
3359		APPLIED MATERIALS	3
4/17/97	N30		(408) 563-1240
Replacement		(408) 563-5504	4500020574
Printed	STxPaid	R-263744	XSM (Temp24625-1) 6/6/
Option	rs A		
FastD:	splu Sort	Sets Search	New Records R

MWS /qty- Total	PO- Invoiced	Left to pay	Age	Frt-Tx-RM/
M97-24620	238078	Closed-Paid	Age : 65	
1,634.43	1,634.43	•		Out of state
P:1,634.43 L:5	/28/97 V: PAI	D IN FULL		
4/11/97	<del>_</del> .			
M97-24646	19620-43935-N	Closed-Paid	Age: 36	Destination
469.81	469.81			36.81
P: 469.81 L: 5/1	/97 V: PAID IN	FULL	• • • • • • • • • • • • • • • • • • • •	
4/15/97				
M97-24625	4500020574	Closed-Paid	Age: 70	42.16
6,228.09	6,228.09			444.93
P: 6,228.09 L: 6			************	
3/97: donna, not on s	sys yet, n <del>ee</del> ds denis	e. 5/5/97:ship	ped to gene	lane, talked to
M97-24618				1,569.79
251,936.83	244,363.72		:	18,503.93
251,936.83 P: 244,363.72 L:	:4/18/97 V: P	AID IN FULL		
5/97 R-263925RP			15/97: Jir	n Walsh 510-84
M97-24712		Closed-Paid		
	184.42			13.28
P: 184.42 L: 6/6	/97 V: PAID IN	FULL	************	
d:4/17/97 5/29/	'97:RMA involved n	eed to find RMA to	ype. need to	oredit \$10.14
M97-24713			Age : 25	
304.72	304.71		1	22.31
P: 304.71 L: 5/5	/97 V: PAID IN	FULL		
			<del></del>	A
M97-24760	4500020574	Closed-Paid	Age : 56	30.11
	4,551.71		1	344.60
P: 4,551.71 L: 6,	/12/97 V: PAID	IN FULL		
7: donna will CM-13:	<u>231-1-73</u>	2 inv\$4551.71 to	deduct from	iny and pay the
			i	
) IR		Total & Collect	Note	De-I
yrn RelatedSwitc	h QuickSwitch	Searc	hes	P
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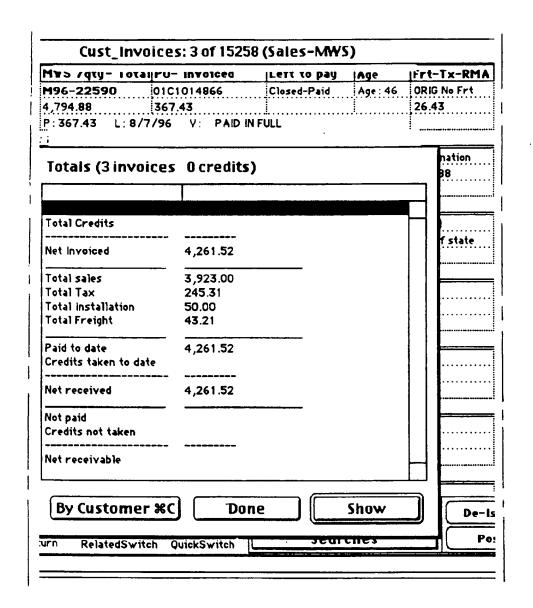
**FIG. 83C** 

Fig. 84

Fig.84A	Fig.84B	Fig.84C

nvoice-Date-Term-Type	Customer	¥ Customer PC
10840	SILICON GRAPHICS	INC
6/22/96 N30	ACCOUNTS PAYABLE	(415)933-6381
Customer	(415)961-1351	01C101486
Printed	R-250572	RP (Temp22590-1) Approve
0843	FIRST DEPOSIT	
6/22/96 N30	LINDA	(415) 222-7669
Customer	(415) 278-6045	16790-32726-2101
Printed		
0844	ORACLE	
6/22/96 N45	C. RODRIGUEZ	(415) 506-3209
Customer	(415) 633-2945	20911
Printed		
:		
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RA RA		
Options 第		
FastDsply Sort	Sets Search	New Records F

**FIG. 84A** 



**FIG. 84B** 

Credit summary	•
	墨
<u></u>	
·	
sue Sales Adj Historical On	
st Recalc Delete	ᅵ
	_

**FIG. 84C** 

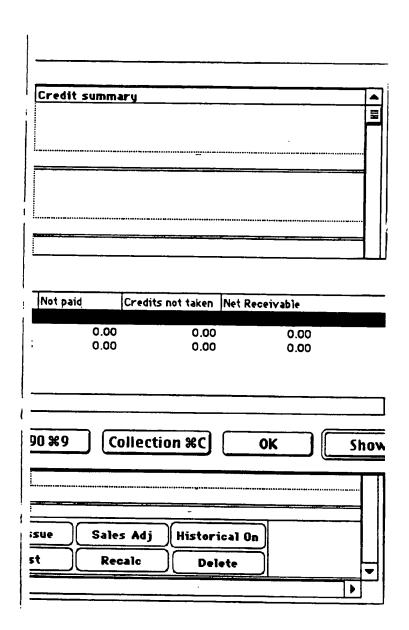
Fig. 85

Fig.85A	Fig.85B	Fig.85C

Invoice-Date-Term	-Type	Customer		¥ Custome	r P
10840		SILICON GRAPHICS INC			
6/22/96	N30	ACCOUNTS PAY	ABLE	(415)933-638	1
Customer		(415)961-1351		01C101	48
Printed			250572RP (Tem	p22590-1) App	roi
10843		FIRST DEPOS	IT		
6/22/96	N30	LINDA		(415) 222-766	9
Customer		(415) 278-604	5 1	6790-32726-2	10
Printed					
10844		ORACLE			
Customer	Count	Total Invoiced	Total Credits	Net Invoiced	Sa
ORACLE	1	1,050.21	0.00	1,050.21	
SILICON GRAPHICS INC	1	367.43	0.00	367.43	
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Options	CHA-				

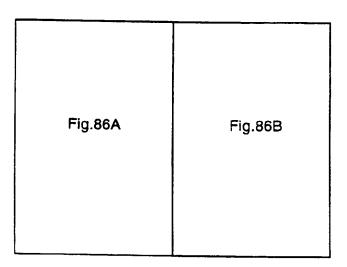
Mys		ices: 3 of 152		rt to pay	Age	Frt-Tx-RM
<b>M9</b> 6- 4,794	22590	01C1014866 367.43		sed-Paid	Age : 46	ORIG No Frt 26.43
<u>i</u>		-	-	·		nation 38
						<u> </u>
total	Tax total	Inst total Freight	total P	aid to date	Credtis tak	en Net receive
07.00 41.00		0.00 0.00	43.21 0.00	1,050.21 367.43		.00 1,050. .00 367.
				30 %3	>60	0 %6
					-	De-
ırn	RelatedSwit	ch QuickSwitch	11	JEUI	LIIES	.   •

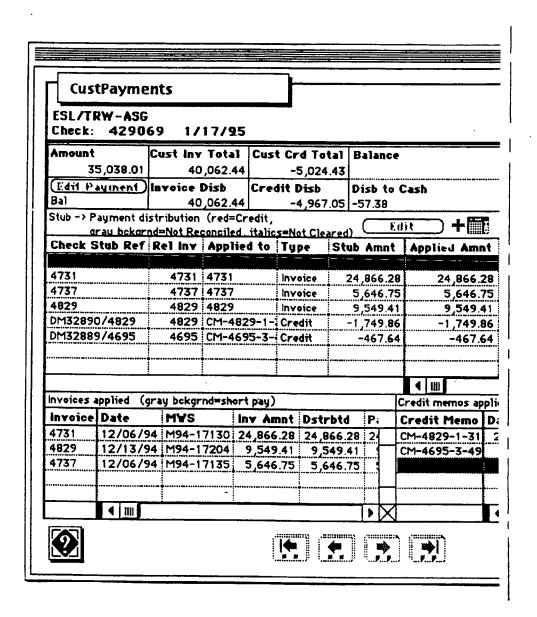
FIG. 85B



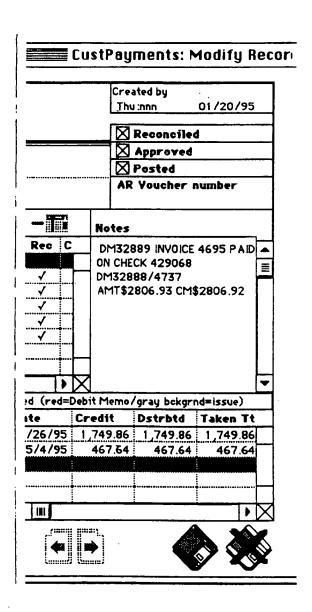
**FIG. 85C** 

Fig. 86





**FIG. 86A** 



**FIG. 86B** 

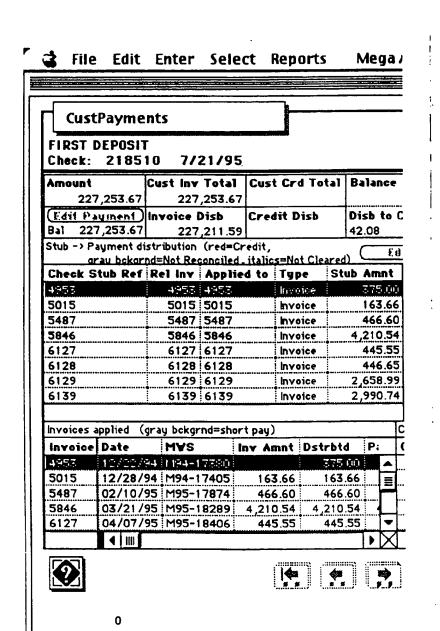
Fig. 87

Reference	red=unr	reconciled	Customer		
129069	Check	Reconciled	ESL/TRY-ASG		
30068	Check	Reconciled	ESL/TRW-ASG		
95150	Check		NETWORK GENER	AL CORP.	
00023541	5Cheok		PACIFIC BELL LOS	ANGELES	
613394	Check		Symantec Corpor	ation	
Q G		2			
•	ort s	ets	Search	Total	Return Re

Discrepency Am	ount red=customer o	wes
01 Over Credit		
	-57.38 IntCred	57.37 BadDeb
3.68 Over Credit		
	-8.69 IntCred	.01 BadDebt
143.25 Over Credit		
734.59 Over Payme	nt Closed	
,508.05 Over Cred	lit .	
*****************************	18000000000000000000000000000000000000	
	***************************************	
	*	***************************************
***************************	41 114 900 14 10 10 10 10 10 10 10 10 10 10 10 10 10	
[р] . <u>э</u>	)	
	Options	
dSwitch QuickSw		

Fig.88

Fig.88A	Fig.88B



**FIG. 88A** 

2.17/431

tivities									
					E Cu	stPaym	ent	s: Mod	lify Recor
						reated by 'hu :nnn	,	7/24/9	_
						iid anni		1112473	
						Reconc	iled		
					P==	Approv	ed		
******************				•••••		Posted			
:p					_   ^	R Vouche	er nu	mber	
	_				$\leftarrow$				
<b>一十</b> 圖	;				Note	<b>S</b> .			İ
pplied Amn	t	Rec	C						7-1
375.0		.,			]				H
163.6	******	✓_		. E	1				
466.6		✓_			1				1 1
4,210.5				.]					1 1
445.5		✓_	<u>.</u>						
446.6		✓_		J I					1
2,658.9									1 1
2,990.7	4	✓	_!_						
(   HH			•	$\boxtimes$					
dit memos app	lie	d (r	ed=	Debi	it Mem	o/gray bel	grnd	=Issue)	
dit Memo	Da	te		Cr	edit	Dstrbt	d T	aken T	t
				<u></u>					
				<u>.</u>	•••••				
	••••••	*******		ļ <u>.</u>				****************	.]
	•••••	·········		<b></b>	***********		<u> </u>	••••••	
		γ		<u> </u>			i		$\bot$
	4	88						>	$\bowtie$
		ادر		<b>.</b>	:: <u>.</u>		A	•	_

FIG. 88B

Fig. 89

Fig.89A	Fig.89B	Fig.89C

DYC	pice -pay -ve	n/terms	In -En -Ry	MWS /qty - cos	t PO -billed
-5	237969		10/3/96	•INVENTORY•	4
				5,600.00	
	TECHDATA	N30	11/26/96	P:5,600.00 L:	5,600.00 12/5/96
			AP Posted		
0-	01138-21		2/5/97	M97-24410	1 24410
	MicroD		2/11/97	41.69	41.69
	MicroD	N30	2/7/97	P:41.69 L:41.	69 3/5/97 <b>*93</b> 79
			AP Posted		
36	139711		2/10/97	Multiple	8
	DEUTSCHE-P	LS	2/14/97	6,441.52	
	MicroD		2/11/97		6,441.52 3/5/97
	<u>.</u>		AP Posted	need or. \$35.00	
1 -	38282-11		6/5/97	Multiple 1	0
	Merisel	· • • • • • • • • • • • • • • • • • • •	6/9/97	777.40	777.43
	Merisel	N30	6/6/97	P:-777.43 L: 77	7.43 7/25/97
<b>3</b> -	3256 <b>4</b> -11	<u> </u>	6/1/97	M97-24919	1 24919
• • • • ,	Merisel		6/9/97	360.24	
	Merisel	NZO	6/6/97		60.24 7/5/97 <b>*</b> 9
	; ;				<u> </u>
01			5/21/97	Expenses	
RX	LANIER ELEC		6/10/97		900.00
	LANIER ELEC	N30	00/00/00	P: 900.00 L: 90	0.00 6/19/97 **
	Ont	ions (Fx	clusive CB	<u> </u>	
Z		roblems	1		
<del>-</del>		robleins endor RMA	=L= 2	ort Sets Fir	nd New Records

**FIG. 89A** 

220/43)

Next payment	Status-problem	RMA -Vcredit	Disc-Dt-\$-L
	Paid-Ord		10/3/96
• • • • • • • • • • • • • • • • • • • •			Avail:
*9157 R: mult			
	Paid-cRMA-BC	R-257429CR	2/5/97
		50-04042-11	Avail:
R: multiple V			
			h
	Paid-Cred-BC	Multiple	2/10/97
		,	Avail:
9372 R: multis	ole V:	\$225.11	
			h
	Paid-Cred-BC		6/5/97
	•		
8 R: multiple	γ	V.1.41146	
			***********************
	Paid-Ord		6/1/97
	• • • • • • • • • • • • • • • • • • • •		Avail:
R: multiple	v:		
	**************************************		
	Paid-NR		5/21/97
	Building maint		Avail:
9 R: multiple	V:	• • • • • • • • • • • • • • • • • • • •	3
			***************************************
	<u></u> F	; Fotal Billed	<del></del>
	<b>i</b>	ividi billed	Rem
	-3-2-2	Need to pay	
turn RelatedSwi	itch QuickSwitch	1660 IO NTO	His

st Inv Stats	Review Status	Date -	Pay -	Youcher
Inventory	[Ord]		5,600.00 -	
12965	(Cred)	3/7/97 - 4	1 .69 -	***************************************
Multiple	[Cred]	3/5/97 - 6	,441.52 -	
Multiple .	[Ord]	7/5/97 - 7	77.43 -	
13535	[Ord]	7/1/97 - 3	60.24 -	······································
No Invoices	[[rx]]	6/20/97 -	900 00 -	
			······································	***************************************
PrePaid	Act Distrib	ution		
cal On	Set Partner:	Acts		

FIG. 89C

PO Payee

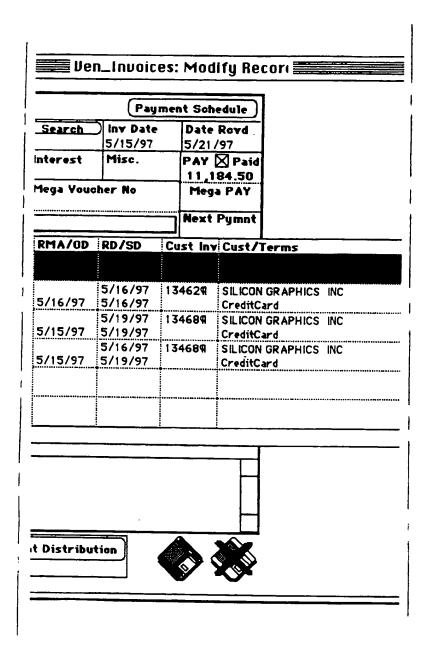
FIG. 90

Fig. 91

Fig.91A	Fig.91B	Fig.91C

Vendor	-		1		ost of goods	
<b>Vendor</b> Merisel		y ee rise		20 on inv	RMA on inv	Invoice No
Multiple	2		<del></del>	F	   F=++++ O++	11-14146-1
M97-24858	Custome		Total Billed 11,184.50	_	Freight Out	Iax
M97-24859	Custome		Net Billed	Net Credit	Net Purch	VenTerms
			11,184.50		11,184.50	
		-	Reconcil	*******		Status
MWS	V.M	Otu	Cost/Total		Description	<u> </u>
		viy		11106710(41	Description	/ -
M97-24858	MT	1	2,000.00	2,331.00	EQUIUM 6200D	PPRO 2.95GB
*************************	e 0		2,000.00	2,331.00	DESKTOP	
M97-24859	MT	2	4,335.00	4,661.00	TECRA 730XCD	T PENT-150
***************************************	e 0	••••	8,670.00	9,322.00	MMX 2.0GB 16	MB 12.1 TFT
M97-24859	MT	2	217.00	242.00	<b>BATTERY LITH</b>	ION T730 720
	e 0	••••••	434.00	484.00	& T700 SERIES	TECRA
***************************************		•••••				<b></b>
						-
l			Com	ments		
<b>⊠</b> PreAppr	Vd 🛛	App	roved			
	eu Yord		7			
Reset	∬Red	hec	k Rcvd			

**FIG. 91A** 



**FIG. 91B** 

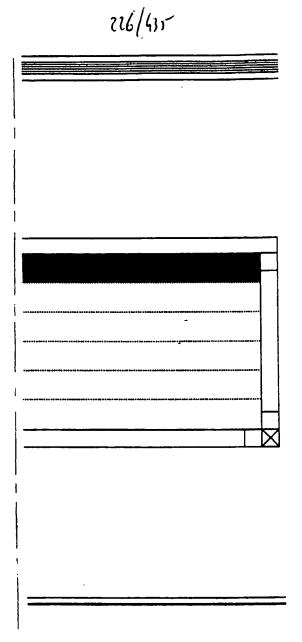


FIG. 91C

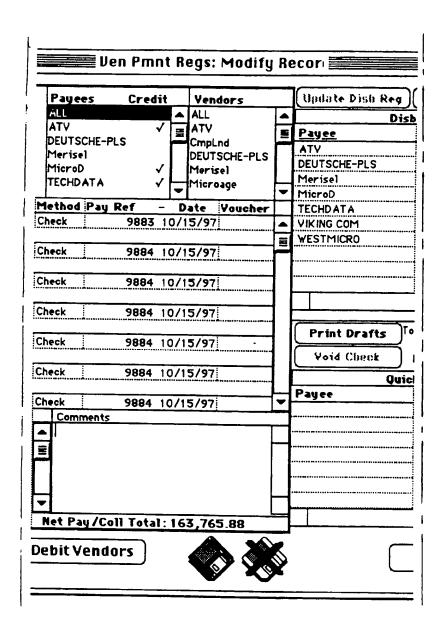
Found	10/16/97 3:13PM	Done
	Miscelaneous invoices (includes pre-approved)	
••••••••		
	Clean with RMA full credit) - cRMA	
2	Clean with Credit Memos (not RMA) - cCred	
	Clean reconciled by Credit - cRBCr	
2	Clean inventory - clnvent	
2	Clean internal use - clnt	
20	Clean manually reconciled - cMan	
3	Clean replacements - cRpl	
	Clean drop shipments - cDS	
24	Completely Clean invoices - cC	
53	Total clean invoices	
***************************************		-
	No MWS - NoMWS	
65	Not reconciled (includes pre-approved) - NR	
11	Replacement/RMA without credit - Cred	
74 1 70 0 0 1 0 7 0 0 0 0 0 0 0 0 0 0 0 0	Not received discrepencies - Rcvd	
	Not shipped discrepencies - Shpd	
	No customer invoices - Custinv	
	Freight/tax charges - FrTx	
14	Order date discrepencies - Ord	
	Cost/Price discrepencies - CP	
. 99	Total invoices with discrepencies	
••••••		-
120	<u> </u>	
86	Reconciled	
•••••	Pre-approved	
•••••	Approved	
7		
215	Total not paid	

FIG.92

Fig. 93

Fig.93A	Fig.93B	Fig.93C

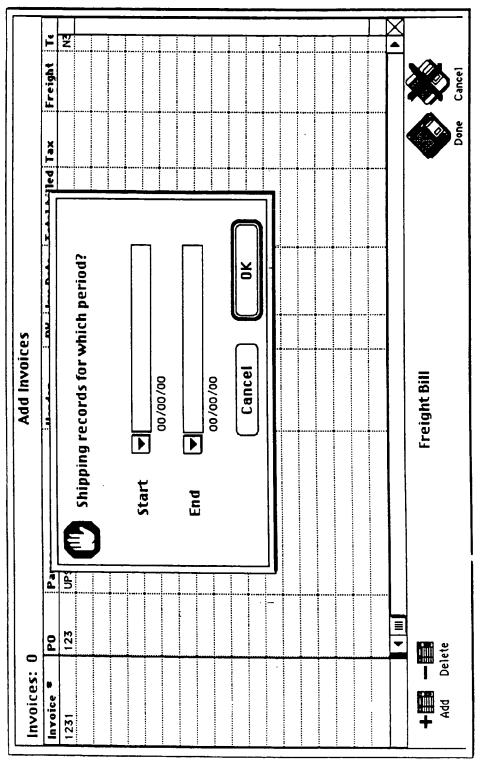
Ven P	mnt Reg	ς				Approve
		·		Appro 📈		
Discou	nt Rate	Dis	C	⊠ Paid/l	Posted	feod (find
Register			Total Inv	169,158.72		Register has been
	10/15/97			5,392.84		paid and cannot b
Count	<del></del>			163,765.88		modified
Move		Credit	Reconcil	ed (Recon	<u>cile</u>	Notes
Payee	Vendor	Invoic			Due d	ate Amount
ATV	ATV		284647	22,401.25	10/2	2/97 22,401.2
DEUTSCHE-F	SYNNEX		1894476	516.60	10/1	6/97 516.6°
DEUTSCHE-F	SYNNEX		1897681	1,109.00	10/11	8/97 1,109.0
DEUTSCHE-F	MicroD	2	34107611	530.60	10/1	5/97 530.6
DELITECTE 1			74407604			- (cz
DEUTSCHE-F	Microu	<u>Z</u> .	34107621	170.28	10/1	5/97 170.2
DEUTSCHE-F	MioraD	2	34117011	1 ,530.61	10/11	5/97 1,530.6
DEO I SCHE-I	illier ob	£	34117011:	1 3.050, 1	10/1	3/3/: 1,330.6
DEUTSCHE-F	MicroD	2	34912611	1,431.80	10/10	6/97 1,431.8
Invoice cour	•	<u> </u>	3771Z011;			oice: 169,158.7
Payee	Vendor	Credit	Memo :	Total Credit		
TECHDATA	TECHDATA	*************	-8285701		- <b>-</b>	2/97 934.00
Multiple	***	****************	*****	40100 00 00 00 000 0 1000000000 00 00 00		
TECHDATA	TECHDATA	2	-8662409	96.00	9/2	9/97 96.00
Price Prot	tectic		*******************************	***************************************		
TECHDATA	TECHDATA	2	-8666105	1,410.00	9/3	0/97 1,410.00
Credit coun	18		Reconc	iled	Total C	redit 5,392.8
<b>②</b>		S	A.		•	



**FIG. 93B** 

		$\overline{}$		
Payabl				
ursement Ref/Chk				
NET/CIIK	20,619		Dat	<u>•</u>
	7,303	*** *******	••••••••••	}-
	3,073			
	3,857			•••••
	123,60		*************	
	1,140		**********	
	4,162	.00	***************************************	
			,	
·····	•••••••	<del>.</del> .	***********	
:				i
				+
apply quick		Pri	nt Che	cks
apply quick drag to t	he	Pri		ecks heck
drag to t	he nt Reg			
drag to t	he nt Reg	s)		heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck
drag to to drag to to disbursement Checks (	he nt Reg ( <b>orphan</b>	s)	rint C	heck

**FIG. 93C** 

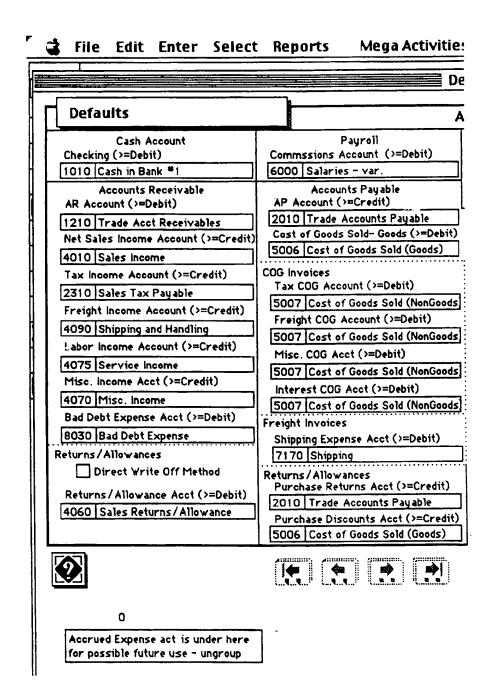


**FIG. 94** 

Fig. 95

Fig.95A	Fig.95B

234/431-



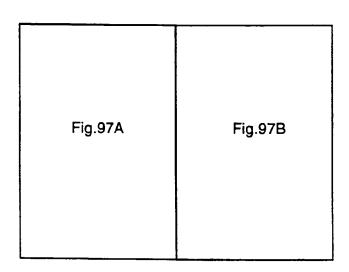
**FIG. 95A** 

aults: Modify Record				
counting Setup			_	
Credit Card (AR)			GL Closing	
Credit Card Expense Acct (>=Debit	t)	Retained	Earnings (>=Credit)	
7410 Bank Charges		3900 Pi	rior Year's Retained	Earning
Cr Card Accrued Income Acct (>=(				
1015 Credit Card Accrued Income				
Accrued AP Account (>=Credit)			Check Amnt Pad	
2050 Accrued Payable		-	CHECK AITHER AU	
☐ Multi accrued payable -	OFF	-		
×pense invoices	• • • • • • •	• • • • • • • • • • • • •	1	
Tax Expense Account (>=Debit)				
To expense		xpense		
To expense		xpense		
To expense reight Expense Account (>=Debit)				
To expense Freight Expense Account (>=Debit) To expense		xpense		
To expense  reight Expense Account (>=Debit)  To expense  Misc. Expense Acct (>=Debit)		xpense		
To expense  reight Expense Account (>=Debit)  To expense  Misc. Expense Acct (>=Debit)  To expense				
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit)		xpense xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense		xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense		xpense xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense		xpense xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense Inventory Support Account for Cust Purch Inventory MEGA CUSTOMER INVENTORY		xpense xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense Inventory Support Account for Cust Purch Inventory		xpense xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense Inventory Support Account for Cust Purch Inventory MEGA CUSTOMER INVENTORY		xpense xpense		
To expense Freight Expense Account (>=Debit) To expense Misc. Expense Acct (>=Debit) To expense Interest Expense Acct (>=Debit) To expense Inventory Support Account for Cust Purch Inventory MEGA CUSTOMER INVENTORY Account for RMA Inventory		xpense xpense		

FIG. 95B

				ChartOfAccnts: Modify Records
ChartOfAccnts			Bank account	Credit card account
Fianancial Code IP	de IIP			
Account Code	4010	Account	Account Sales Income	
Account type	Revenue			
	O Debit to	O Debit to Increase	<ul><li>Gredit to Increase</li></ul>	Details Switch Setup
			FIG. 96	

Fig. 97



Acct Code	Account Red = not opened	Account Type
BA 1010	Cash in Bank #1	Asset
BA 1210	Trade Acct Receivables .	Asset
BA 1220	Notes Receivable	Asset
BA 1240	Other Receivables	Asset
BA 1250	Employer's Loans and Advances	Asset
BA 1410	Merchandise Inventory	Asset
BA 1510	Prepaid Expense	Asset
BA 1520	Pepaid Fed. Corp. Tax	Asset
BA 1530	Prepaid Franchise Tax	Asset
BA 1610	Furniture and Fixtures	Asset
BA 1620	Office Equipment	Asset
BA 1630	Class Room Equipment	Asset
BA 1640	Vehicles	Asset
BA 1650	Leasehold improvement	Asset
3A 1710	ACC. Depreciation - F&F	Contra Asset
3A 1720	Acc. Depreciation - Office Equip.	Contra Asset
3A 1730	Acc. Depreciation - Class Room	Contra Asset
BA 1740	Acc. Depreciation - Lease Hold	Contra Asset
BA 1750	Loans to Shareholder	Asset
BL 2010	Trade Accounts Payable	Liability
3L 2020	Auto Loan - Current	Liability
BL 2030	Loans Payable	Liability
L 2040	Interest Payable	Liability
L 2050	Accrued Payable	Liability



Finance Codes







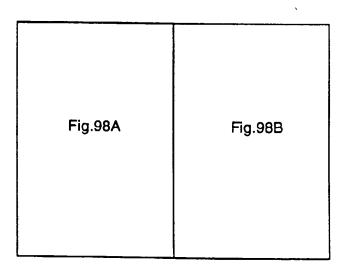


FIG. 97A

Increase	Decrease	Balance
Debit	Credit	644,025.30
Debit	Credit	855,100.21
Debit	Credit	
Debit	Credit	
Debit	Credit	
Debit	Credit	15,569.00
Debit	Credit	
Debit	Credit	
Debit	Credit	
Debit	Credit	
)ebit	Credit	
Pebit	Credit	•
Pebit	Credit	
Pebit	Credit	
redit	Debit	
redit	Debit	
redit	Debit	
redit	Debit	
ebit	Credit	
redit	Debit	
redit	Debit	
redit	Debit	
redit	Debit	
redit	Debit	

FIG. 97B

Fig. 98



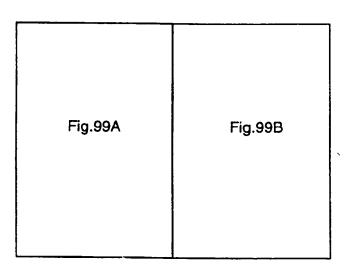
	ChartOfAccnts: M
Chart	tOfAccnts Ban
Fianancia	T Code IP
Accoun	t Code 4010 Account Sales Income
Accoun	nt type Revenue
Date	Account Titles and Explanation
5/14/97	Net sales for 5/14/97
4/10/97	Net sales for 4/10/97
4/11/97	Net sales for 4/11/97
4/11/97	Net sales for 4/11/97
6/10/97	Net sales for 6/10/97
	·
<del></del>	
<del></del>	
	1
"manned	

FIG. 98A

ccoun	t	Credit c	ard account
	O Debi	t to Increase (	Credit to Incre
Ref	Debit	Credit	Balance
547		27,854.00	27,854.00
554		30,791.37	58,645.3
556		42,015.00	100,660.3
557		635.00	101,295.3
559		115,568.00	216,863.3
············			
	C	urrent ballance	216,863.3
			A

FIG. 98B

Fig. 99



Accts_Rcvable			Customer
Company Name: ORACLE			
Receivables Acts	<b>√</b>	Set Def	Freight Incom
Accounts Receivable (>:	=Debit)	仑	Freight Ac
✓ Trade Acct Receivables		<b>□</b> + □ <b>○</b> - □	✓ Shipping a
Sales Income Acts	<b>√</b>	Set Def	Labor Income
Sales Acts (>=Credit)		$\Diamond$	Labor Acts
✓ Sales income		<b>↓</b> + <b>□</b>	✓ Service In
Tax income/Payable Acts	( 7	Set Def	Misc. Income
Tax Acts (>=Credit)		仓	Misc Incom
✓ Sales Tax Payable		+ E	✓ Mise. Inco
		<u> </u>	== 1

FIG. 99A

/Payable Acts s (>=Credit) d Handling  ayable Acts (>=Credit) ome	Ompany Code racle  ✓ Set De	123	1	
s (>=Credit) d Handling 'ayable Acts (>=Credit)	<b>☆ ■ → → Set De</b>			<u>{</u>
d Handling  ayable Acts  (>=Credit)				Į.
(>=Credit)	√ Set De			र
(>=Credit)				
			Open Accou	1
***************************************	⊕ +	· 📳		
cts	√ Set De			
Acts (>=Cre	dit) ① 章 +		Credit Card A	

FIG. 99B

Fig. 100

Fig.100A	Fig.100B

Account BEEBOY FILE	(Red = Not approved)	GL Act
NAVAL SUPPLY CENTER		
WATKINS JOHNSON		
NASA AMES RESEARCH CENTER		
CITY OF MOUNT AIN VIEW		
UNITED AIRLINES		
Symantec Corporation		
ORACLE		Sales Income
Silicon Systems	-	
	-	
	-	
US2 NAVAL WEAPONS STATION CA	-	
Silicon Systems  US2 NAVAL WEAPONS STATION CA  PAC BELL EDI  Goldman, Sachs		
US2 NAVAL WEAPONS STATION CA		Get Inventory Get Credit Card

FIG. 100A

rent Balance	30	60	90
***************************************	•	•••••••••••••	
	141010101011111111111111111111111111111		
222,304.12		)	
7,553.00		<b></b>	
104,288.00			
623,510.96			
763,048.50			
4,372,277.53			
499,156.82		-	
13,239.00	***************************************		
		)	
133,896.08			
R	Opt	ions	

FIG. 100B

Fig. 101

Fig.101A	Fig.101B

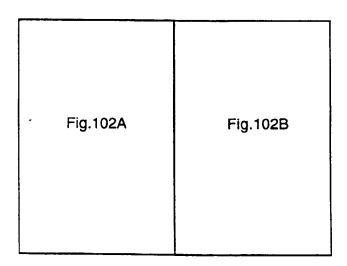
	וטטנ	s_Rcvable		Accounting
Cor OR A	mpany CLE	Name:		
Dat	e	Account Titles an	d Explanat	ion
4/	10/97	Customer Invoice 13	308 issued	
4/	11/97	Customer Invoice 13	320 issued	
4/	11/97	Customer Invoice 13	326_issued	
<u></u>				
				<del></del>
				· · · · · · · · · · · · · · · · · · ·
				· - · · · · · · · · · · · · · · · · · ·
			<del></del>	
Ade	dress	es		
		MWS Company name	e	Contact
	Other	ORACLE .		
l	WrHse	ORACLE		
	DN4.4	<u> </u>		
		No	tes	Del

FIG. 101A

Inform	nation			· · · · · · · · · · · · · · · · · · ·	
	Company Co Oracle	de :	Seq*:	Sales Rep RJ.CASTR	
Ref	Debit	Credit	1	Balance	ŀ
554	2,294.90			2,294	.90
558	378.88			2,673	.78
558	38.97		-	2,712	2.75
	<del> </del>		····		
	<del></del>			1	
					;̈
	Curr	ent bal	lance	2,712	.75
Address	1	<u> </u>	- 0	City	7
OO ORAC	LE PARKWAY		F	Redwood City	
	LE PARKWAY			Redwood City	
	E D ADIVUAV			N. d d (24	
te ) [	Duplicate )	{ 1	Edit	) ( Add	4

FIG. 101B

Fig. 102



253/43/

Ocata Daughts		7		ts_Pay
Accts_Payable			Partner (	GL Setu
Partner Hame				Partne
Ingram MicroD				MicroD
Accounts Payable (>=Credit)	(√ 5	et Def	Accrued P	ay ables
✓ Trade Accounts Payable	<u> </u>		√ Accrued	Payable
	<u> </u>	十篇		
	Ų		•••••••	
COG Accounts (>=Debit)		et Def	COG Misc.	
✓ Cost of Goods Sold (Goods)	설		✓ Cost of C	ioods Sold
		+		
***************************************	Ō	- 自		<b></b>
COG Tax Accounts (>=Debit)	ايند	et Def	COG Intere	st Acco
✓ Cost of Goods Sold (NonGoods)	िं	<u></u>	✓ Cost of C	
	<b>=</b>	<b></b>	***************************************	***************************************
		+5	***************************************	***************************************
	Q			
COG Freight Accounts (>=Debit	) (V s	et Def		
✓ Cost of Goods Sold (NonGoods)	쇼			
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***************************************	Ū			
	V		l	
(test)				
		<b>(</b> 22	<b>(*)</b>	
	•			
•				

FIG. 102A

ible: Modify Record	■ Approved	
)	□ ubhtoned	
Code Credit Payee MicroD P=Credit) ( Set Def)	☑ Vendor ☐ Manufacturer ☐ Carrier	
+ <b>=</b>	☐ Payee ☐ Cost of Goods Payee	
(>=Debit) (√ Set Def)	Expense Payee	
NonGoods)	State Tax Payee	
ひ ━■	Reserved space for	
nts (>=Debit) ( \set Def)	more expense payees	
NonGoods)	Áutomatic Invoice	
Open Account	<u>↑</u>	
Reset Defaults	<u></u>	· !
AP Subledger Set  Acrd Payable Acrd		

FIG. 102B

Fig. 103

Fig.103A	Fig.103B

Code	Partner Name		Red= BaseLine vendor
MicroD	Ingram MicroD		
	vd (800) 274-4800	☑ Ven ☐ Mfgr [	Car 🛭 Payee
CmpLnd	Computerland		1
	vd (800) 354-9368	∨en    Mfgr	Car 🛛 Payee
Merisel	Merisel	*******************	
	vd (800) 462-5241	🛛 🛛 Ven 🔀 Mfgr 🗌	Car 🛛 Payee
Mega 1	Mega Network, Inc	· • • • • • <u>• • •</u> • • • • • • • • • • •	<u>.</u>
	/d (408) 730-9138		Car 🛛 Payee
WordMarc	VordMARC Interna	tional Corporation	<u>.</u>
	/d 800-835-2400	✓ Ven	Car 🛛 Payee
	L MICRO CENTRAL, I	· • • • • • <u>• • •</u> • • • • • • • • • • •	<u> </u>
	d 800-836-4276	🛮 🖾 Ven 🗌 Mfgr 📗	Car 🛛 Payee
VMI SZI A	YMI CORP	· · · · · <u>· · · ·</u> · · · · · <u>· · · · ·</u>	<u>.</u>
<u>;  ∆  Aprv</u>  BM	/d 408-745-1700		Car 🛛 Payee
:	IBM CORPORATION	<u></u> <u></u> <u></u>	<u></u>
<u>∷ E∆IAPrv</u> ICG	d 408-452-4810	🛛 Ven 🔯 Mfgr 🗌	Car   Payee
* * * * * <u>* * * *</u> * * * * * * *	International Comp	· · · · · <u>· · ·</u> · · · · · · <u>· · · · ·</u>	
ompaq	d (800) 659-4244	✓ Ven	Car     Payee
· · · · · <del>· · · · · ·</del> · · · · · ·			
ARDBAGY		✓ Ven ✓ Mfgr	Car       Payee
, <u></u>	d (408) -262-2111	********************	
ZERTY	AZERTY INC.	Ven ☐ Mfgr ☐	Car 🛛 Payee
· • • • • • • • • • • • • • • • • •	אונצחח) באאב אחאח	Van Mfar	C N B
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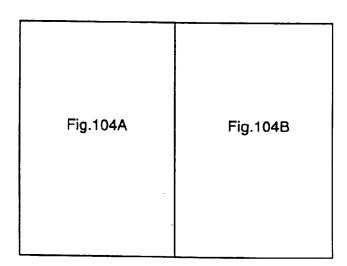
FIG. 103A

Partners:	1065 of 1065 (	(Sales-MU	
Accounts payable	Acrued payable	Total payable	Accrued Invoice
☐ Expense ☑ COG	Cost of Goods Sold	(Goods)	
Expense	Cost of Goods Sold	(Goods)	
☐ Expense ☒ COG	Cost of Goods Sold	(Goods)	
☐ Expense ⊠ COG	Cost of Goods Sold	(Goods)	
Expense COG			
☐ Expense 🔀 COG	Cost of Goods Sold	(Goods)	
Expense COG		······································	
☐ Expense 🗵 COG	Cost of Goods Sold	(Goods)	
Expense COG	Cost of Goods Sold	(Goods)	
Expense 🗵 COG	Cost of Goods Sold	(Goods)	
Expense COG		·············	
Evnanca M COG	Cost of Goods Sold	(Goods)	
urn QuickSwitch	Vendors Locked Approve	Options	

FIG. 103B

258/431-

Fig. 104



		cts_Payable: N
HCCTS	_Payable	Partner Acc
Partner N		
Ingram Mid		
Date	Account Titles and Explanati	
3/27/96	To record received items without	invojce.
	;	
	_	
		<u> </u>
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		<del></del>
<del></del>		
<b>2</b>	14	

FIG. 104A

260/4)5

croD	Code	Credit   MicroD	Payee			
Ref	Debi	t	Credit		Balance	<u>1</u>
580			3,66	1.53	3,661.53	
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<del> </del>	<del></del>		<del> </del>			
			<del> </del>			
1						
			<del> </del>			
			1			
		<del></del> _				
			<u> </u>			Z
			able bala		3,661.53	L
T	Lurre	nt Accou	unts Paya		11,632.14	
			otal Paya		15,293.67	

FIG. 104B

FIG. 105A

FIG. 105A FIG. 105B

roblem	3524	o.	AdjAcr)>			Debit	Tadage	360.00	2.500.00	450.00	900.00		Ē.			TO QuickSwitch	
Status-problem Fib-NF		Invoice No. 35245	tal invoiced +					nanual distr	manual distr	upplies (man	se (manual di	Payable					
Next payment   Status-problem   5/16/98   Faid-NF		Paye.	To Balance «Debits = Credits = (Total invoiced + AdjAcr)»		<b>5</b>			Increase Entertainment (manual distr	Increase Contract Labor (manual distr	Increase Stationary and Supplies (man	increase Janitorial Expense (manual di	Increase Trade Accounts Payable				IB RelatedSyltch	
Next p			ce cDebits		Account Distributions	Account		Increase E	Increase C	Increase S	increase Je	Increase Tr				Return R	
<b>3</b> 8		Vendor	To Balan		Accoun	Type		žė.	X 8	Net	Net	٩		Û		: 🔛	
PO -billed																New Records	
	-							<u></u>								<b>A</b>	
In -Es -Rv MVS /qty - cost 5/17/98 6/12/98 00/000/00																Sects	
SAHA								<u>.</u>							: : :		
ms in -En -R 5/17/28 6/12/28 180 (00/00/00																. O.m.	
	<u> </u>		}			4		<u>:</u> :						}.	:	Exclusions of the second of th	
Invoice -pay -ven/terms 35245 F: ACE ACE NEE																Options Exclusive Problems Vendor RMA	
hed-				: :				-							:		
Invoice 35245 F:: ACE																	

FIG. 105A

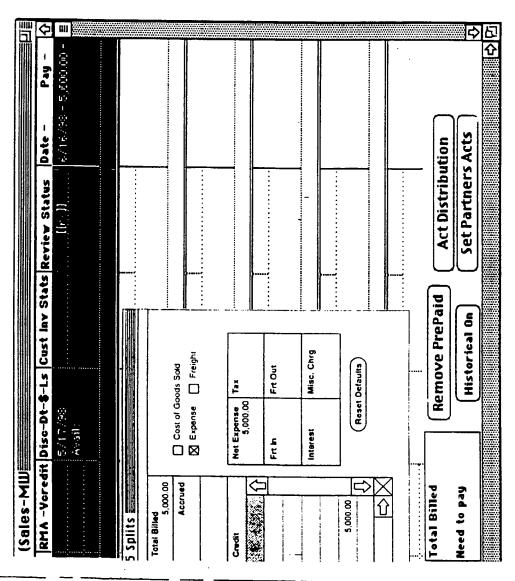
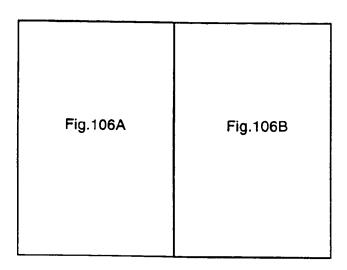


FIG. 105B

Fig. 106



		ournal: 58 ـــــــــــــــــــــــــــــــــــ			
	Date	Account Titles and Explanation			
546	5/13/97	Cash in Bank #1			
546		Trade Acct Receivables			
546		To record cash received to AR 5/13/97			
547	5/14/97	Trade Acct Receivables			
547		Sales Income			
547		Sales Tax Payable			
547		Shipping and Handling			
547		To record Customer Invoices issued 5/14/97			
548	5/15/97	Cash in Bank #1			
548		Trade Acct Receivables			
548		To record cash received to AR 5/15/97			
549	5/19/97	Cash in Bank #1			
549		Trade Acct Receivables			
549		To record cash received to AR 5/19/97			
<b>550</b>	5/23/97	Cash in Bank #1			
590		Trade Acot Receivables			
220		To record cash received to AR 5/23/97			
<b>Q</b>	Cash R	cpts Jrni 🗨 📑			





FIG. 106A

1010     1,919.84       1210     1,919.84       1210     30,183.75       4010     27,854.00       2310     - 2,298.98       4090     30.77
1210 30,183.75 4010 27,854.00 2310 - 2,298.98
4010 27,854.00 2310 - 2,298.98
4010
- 2,270.30
4090 - 30.77
1
1010 74,615.40
1210 74,615.40
1010 59,649.38
1210 59,649.38
1010 11,804.31
1210 11,804.31
TR Sort

FIG. 106B

Account Title and Explanation  Constitution Section Se	General Ledger	nd Explanation Post Ref Debit Credit				***************************************					Totals:	Cancel Post
	Gen	Account Title and Explanation										+

FIG. 107

FIG. 108A

FIG. 108B	FIG. 108D
FIG. 108A	FIG. 108C

				FINANCIAIS: N
Income Statement 2	ent 2	1 D	☐ Trend Analysis	
Line Column	Field			
+	Headers   Clear	$\overline{\Box}$		Portrait
Col-1	Co1-2	Co1-3	Co1-4	Col-5
Operating revenue				
Gross Sales				B-Sales Income
Less: Sales discount			B-Sales Discount	•••••••••••••••••••••••••••••••••••••••
Sales return and allowance			B-Sales Returns/All Calculated	Calculated
Net sales				Calculated
Blank			•	
Cost of good sold				
Merchandise inventory start of period		_	B-Merchandise Inve	
Purchase		B-Sales Income		
Less: Purchase discount	B- Purchase Discour			***************************************
Ö	B-Purchase Returns Calculated	Calculated		
Net purchase		Calculated		
Add Transportation		B-Cost of Goods So		
Net cost of purchase			Calculated	
Cost of good available for sale			Calculated	
Less: Merchandise Inventory - end of period			B-Merchandise Invi	
Cost of goods sold				Calculated
Gross Margin				
Blank				
Onompling over once	••••			

FIG. 108A

				H
Start Date Pick	Rep	Reports used (Links)	d (Links) Used by:	
End Date Pick	T		<b>\$</b>	<b>\( \rac{1}{2} \)</b>
O Landscape			<u> </u>	
	<u> </u> _		Chart of Accounts	2
	令	1010	Cashin Eanl of	♦
	<u> </u>	1210	Trade Acct Receivables	H
	Æ	1215	Accts Rcvbls - American Express	1
	BA	1216	Accts Rcvbls - Visa	
	BA	1 220	Notes Receivable	
	BA	1240	Other Receivables	
	BA	1250	Employer's Loans and Advances	
	ВА	1410	Merchandise Inventory	
	BA	1510	Prepaid Expense	
	BA	1520	Pepaid Fed. Corp. Tax	
	BA	1530	Prepaid Franchise Tax	
	BA	1610	Furniture and Fixtures	
	BA	1620	Office Equipment	
	ВА	1630	Class Room Equipment	
	₽₩	1640	Vehicles	
	BA	1650	Leasehold improvement	
	BA	1710	ACC. Depreciation - F&F	
	₩ B	1 720	Acc. Depreciation - Office Equip.	
	ΑA	1730	Acc Depresiation - Class Doom	

FIG. 108B

Selling expense		
Sales salaries and commission expense	B-Multiple Acts	
Advertising expense	B-Advertising and M	
Rent expense	B-Rent	
Supplies expense	B-Office Expense	
Utilities expense	B-Utilities	
Depreciation expense	B-Depreciation	
Other selling expense	B-Msc. Expenses Calculated	Pa
Adminstrative expense		
Salaries expense exacutive	B-Officer wages	•
Insumoce expense	B-Insurance	
Supplies expense	B-Computer Expens Calculated	þ
Total operating expense		Calculated
Income from operations	<u>.</u>	
Blank		
Non Operation revenue and expense		
Non operating revenue	-	
Interest revenue		B-Interest Income
		Calculated
Non operating expense		
Interest expense		B-Interest Expense
Net Income		Calculated
₽.		
	4	

FIG. 108C

COAS AR AP	ت			<b>8</b>
:caunt Missing	Remase Account	Seg.		
		₽		
Sales Returns/Allowance	4060	ПР	\$	
Sales Discount	4020	-		
Credit Card Accrued Income	4015	<u>a</u>		
Sales Income	4010	<u>d</u>		
Prior Year's Retained Earnings	3900	BS		
Dividend	3200	BS		
Common Stock	3120	BS	***************************************	
Long Term Debt	2450	8		
Fed Income Tax Payable	2380	В	***************************************	
State Income Tax Payable	2360	B 		
Sales Tax Payable	2310	B.		
Payroll Tax Payable	2180	В		
Salary payable	2060	В		***************************************
Accrued Expense Payable	2055	В	***************************************	***************************************
Accrued Payable	2050	В		
Interest Payable	2040	BL		
Loans Payable	2030	ᆷ		
Auto Loan - Current	2020	В		
Trade Accounts Payable	2010	В		
Loans to Shareholder	1750	ВА		
Acc. Depreciation - Lease Hold	1 /40	ij		
~-~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~	ָ ֖֖֖֖֖֖֖֖֖֖֖֭֓֞֝֡	á		

Fig. 109

Fig.109A	Fig.109B
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100,000.00 200,000.00 -100,000.00		U	-100,000.00
100,000.00	100,000.00	100,000.00	100,000.00
	100,000.00	00,000.00 ' <u>200,000.00</u> -100,000.00 100,000.00	
	100,000.00	100,000,00	
Operating revenue Gross sales Less:Sales discounts Sales returns and allowances Net sales	Cost of good sold  Merchandise inventory, start of period Purchases Less: Purchase discounts	Purchase returns and allowances Net purchases Add: Transportation-in Net cost of purchases Cost of goods available for sale	Less:Merchandise Inventory - end of period Cost of goods sold Gross Margin

FIG. 109A

100,000.00

100,000.00

Operating expenses:

275/5	}	)_
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100,000.00 100,000.00 100,000.00	100,000.00 100,000.00 100,000.00 100,000.00	100,000,00 300,000.00 -400,000.00
Selling expences Sales salaries and commissions expenses Advertising expenses Rent expenses Supplies expenses	Utilities expenses Depreciation expenses Other selling expenses Administrative expenses Salaries expenses, executive	Supplies expenses  Supplies expenses  Total operating expenses Income from operations  Nonoperating revenues and expenses

## FIG. 109B

Nonoperating expenses

Interest expenses

Net Income

Nonoperating revenues

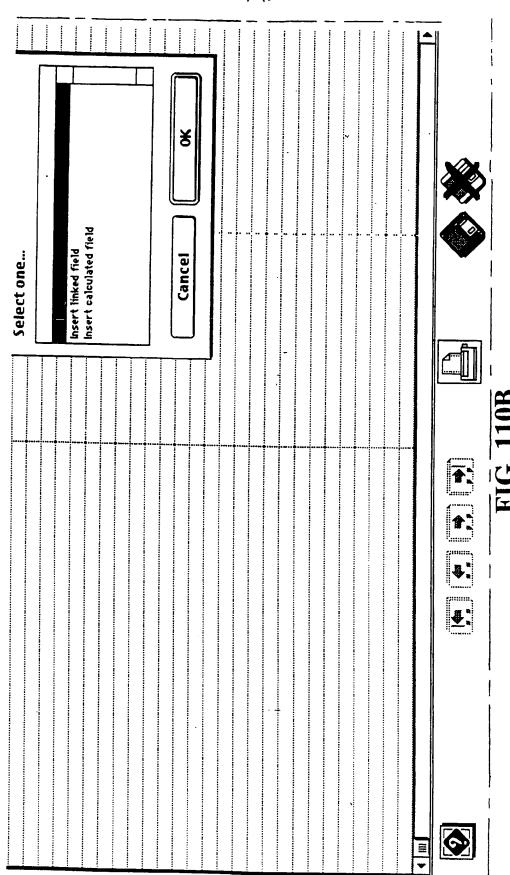
Interest revenue

Fig. 110

Fig.110A	Fig.110C
Fig.110B	Fig.110D

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records	Start Date Pick End Date Pick														
Financials: Add records		O Portrait					 -					••			
Fina	X Trend Analysis		Plot-1						-			•			
	Trend Test	Line Column Field  - The Add Delete Add Delete	Plot labels:	Trend analysis for:											

FIG. 110A



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oorts used (Links) Used by:	,	Chart of Accounts	0	1215 Accts Rcvbls - American Express	Notes Receivab	1240 Other Receivables	•••••	····		•••••	•••••	1610 Furniture and Fixtures	1620 Office Equipment	1630 Class Room Equipment	1640 Yehicles	1650 Leasehold improvement
111111 # :	]		121	121		1240	1250	1410	1510	1520	1530	1610	1620	1630	1640	1650
M a			₩	₩ 6	5 K	ВА	₩	B B	8	8 A	₽	₽	BA	ВА	B₩	BA

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Acc. Depreciation - Office Equip.	Acc. Depreciation - Class Room	ACC. DEPRECIATION - YHICLES	Acc. Depreciation - Lease Hold	Loans to Shareholder	Trade Accounts Payable	Auto Loan - Current	Loans Payable	Interest Payable	Accrued Payable	Accrued Expense Payable	Salary payable	Payroll Tax Payable	Sales Tax Payable	State Income Tax Payable	Fed Income Tax Payable	Long Term Debt	Common Stock	Dividend	Prior Year's Retained Earnings	Sales Income	Credit Card Accrued Income	Sales Discount	Sales Returns/Allowance	Remaye Account Missing	COAS AR AP
720	730	1735	1740	1750	2010	2020	2030	2040	:LO	2055	2060	2180	2310	2360	2380	2450	3120	3200	3900	4010	4015	4020	4060	QVE A	

Fig. 111

Fig.111A	Fig.111B	Fig.111C
Fig.111D	Fig.111E	Fig.111F

	Trend Test	
Line 	Column  + Header  Add Delete	rs Field Clear
lot labels:		Cash in Bank *1
rend analysis	for:	B-Cash in Bank #1
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FIG. 111A

☑Trend Analysis		Start Date	Pick	
Za irena iiraigsis	End Date Pick			
	O Portrait	<b>●</b> Land:	soape	
	Trade Acceu	nts Pauabl		
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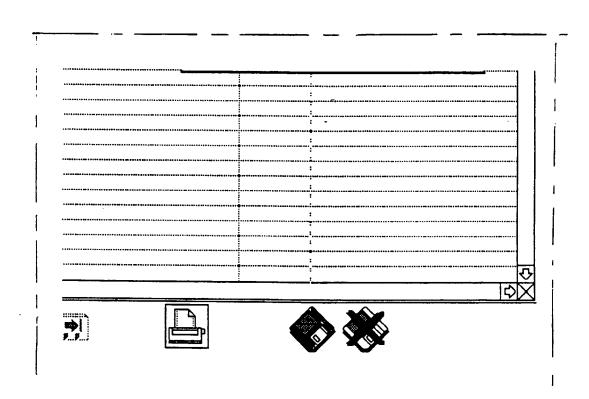
FIG. 111B

Rep	orts use	d (Links) Used by:	
	<b></b>	$\Omega$	
		П	Ì
			-
		닏	
		TO .	
	<u> </u>	Chart of Accounts	
IE	7110	Office Expense	
ΙE	6020	Officer wages	
BA	1240	Other Receivables	
1E	6110	Payroll Tax Expense	
BL	2180	Payroll Tax Payable	
BA	1520	Pepaid Fed. Corp. Tax	
<u>IE</u>	7130	Postage and Courier Services	
BA	1510	Prepaid Expense	
BA	1530	Prepaid Franchise Tax	
BS	3900	Prior Year's Retained Earnings	
IP	5020	Purchase Discount	
IP	5030	Purchase Returns	-1
IP	5005	Purchases	
Ε	7010	Rent	-
Ε	7040	Repairs and Maintenance	-1
Ε	6010	Salaries - Fixed	-1
Ε	6000	Salaries - var.	
BL	2060	Salary payable	
Р	4020	Sales Discount	
Р	4010	Sales Income	
Р	4060	Sales Returns/Allowance	-
BL	2310	Sales Tax Payable	
E	7180	Security	
Р	4075	Service Income	-
Ε	7170	Shipping	
Р	4090	Shipping and Handling	
E	9010	State Income Tax Expense	
BL.	2360	State Income Tax Payable	

FIG. 111C

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FIG. 111D



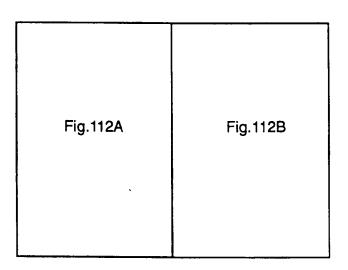
**FIG. 111E** 

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<b>Q</b>			♦	
۱E	7020	Utilities		Ł
ΙE	7350	Travel		
BA	1210	Trade Acct Receivables		1
EιL	2010	Trade Accounts Payable		
ΙE	7999	TEST EXPENSE		
ΙĒ	98989	TEST 4		
ΙE	99999	TEST 3	******	
ΙĒ	79899	Test 2 Expense-		
ΙE	8754	Test		
ΙĒ	7030	Telephone		
ΙE	8150	Taxes - Penalty	******	
ΙE	7220	Taxes - Others	*******	i
IE	7140	Stationary and Supplies		

FIG. 111F

WO 99/33016 PCT/US98/27496

Fig. 112



Trend	Test		
Line Cole	Headers	Clear	
had had a land			
tot labels: road analysis for:		Cash to Bank #1	
		B-Cash in Bank 41	
			-
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		<del></del>	
	Iren	d report raw data	
	Plot I		Cast
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	Apr 9	7	8,5
	May 9		2,44
			7,0 (1000)
			HE PERSONAL PROPERTY OF THE PERSON NAMED IN COLUMN 1
	<u> </u>		
	<del></del>		
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		<del></del>	
[A]	Jii(g) ann.		

FIG. 112A

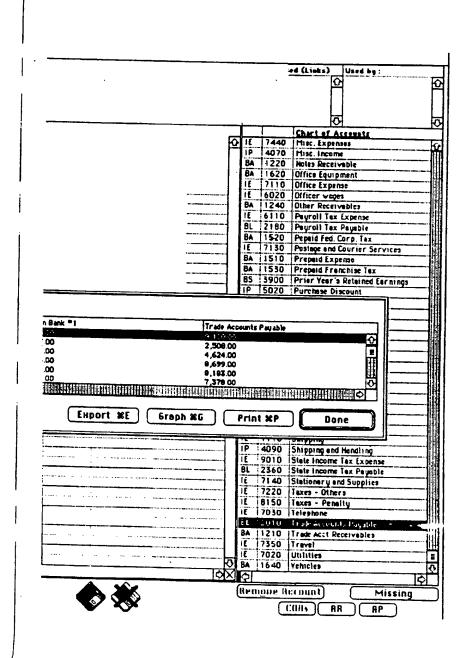


FIG. 112B

**Trends** 

15000 14000 12000 11000 10000 9000 9000 7000 5000 4000 3000

O Cash in Bank #1 Trade Accounts Payable Oct 97 Sep 97 Aug 97 Jul 97 Jun 97 May 97 Apr 97 Mar 97 Feb 97 Jan 97

Cohunn Proportional Steaded Line Area Scatter Pie Picture Default Defa

FIG. 113

FIG.114

Upstream effects

Downstream

effects

Cost

effect

Company

Fig. 115

Fig. 115B

294/435-

### Candidate

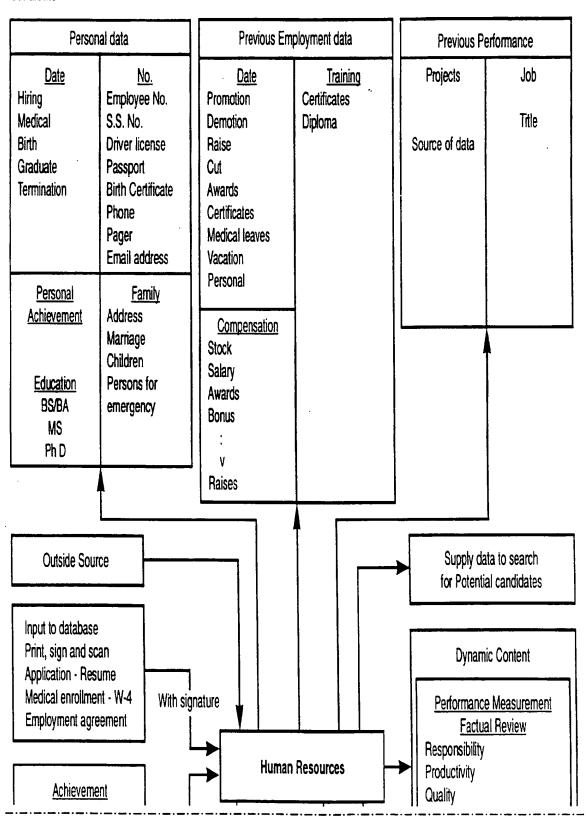


FIG.115A

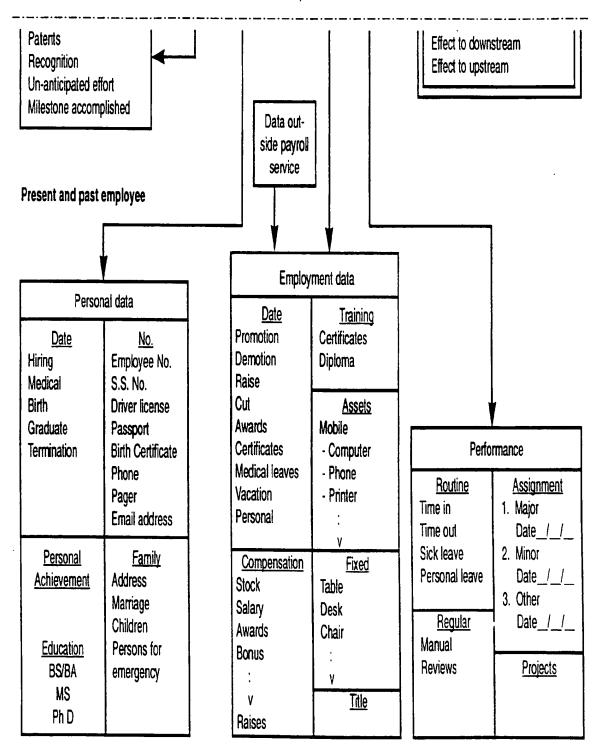


FIG.115B

Fig. 116

Fig.116A	Fig.116C	Fig.116D	Fig.116E
----------	----------	----------	----------

# Algorithm of Activity Data

	Downstream		Customer Mer Service	mer ce Purchase	ase A/R
	Instream		Customer	Customer Service	Purchase
	RMA	Amt. by period	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr.
, J	8	Day between date	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship
Major Measuring Category	Responsible Dent		Sales	Sales Customer Service	Account Receivable Shipping
Ma	Time hetween date		Create date Post date Quote date	Create date Reviewed post uate	Issue date Printed date Paid date
	& hy nerind	polod for	Total amt. Pcost,Scost Install cost Freight cost	Total amt., Pcost, Scost, Install cost, Freight cost	Total amt. Sprice, Install cost,
	Qty by period		Oty by period No., No. convert to MWS	Total iems, Total amt	Total Inv., Total RMA, # of 30days, 45 days,
	Assignment	Biese	Quotes	MWS	Cust.inv.

## FIG.116A

	A/P	A/R	ΑP
	Purchase	Sales	Sales
Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr.
Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date C.rec.date V. Ship C. ship
	Account Payable Engineering	Account Receivable Sales Engineering	Account Payable
Input	Received from ven. Ship to cust. Due date Paid date Approved Scheduled Entry Create date	Create date Issue date	Ven.cr. memo Rcv'd date
Freight, Tax	Total amt., Vcost, Pcost, Freight, Tax	Total cr., Sprice, Pcost, Restock, Tax	Total ven. cr., Pcost, Vcost,
etc.	Total Inv #, Past due # of invoices - 30, 60, 90 days	Total items Credit memo	Total items Ven.cr.
	Ven.ínv.	Cust.Cr.	Ven.Cr.

## FIG.116B

	Ship	Customer	ΑP	
	Purchase Sales Rcv	Purchase	Vendor Purchase	
C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	
Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date	V. rec.date
Sales	Engineering/ Install/ Assembly/ Test	Ship/ Receive/ Inside Sales	Account Payable	
Payment date	Install date Completed Test date	Receive date Ship date	Ven.payment Check Post Approve	
Restock, Tax	Total Install cost, Install price, Ven.Install cost	Total freight amount	Total amount, Total credit, Total check	
	Items/system Total MWS	Total Boxes Total Items	Ven. Invoices V.cr.memo Exp.cr.memo	
	Engineering Install Assembly Test	Ship Receive	Ven. Payment	

### FIG. 116C

AR	A/P A/R	Purchase Customer Service	Ship/Rcv Install/ Engineering
Ship Sales	Sales Rcv	Sales	Purchase
Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.cr. V. cr. C. cr. Rec. cr	Exp. V.a. V. cr. C. cr. Rec. cr
V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date
Account Receivable	CSR Sales Ship/Rcv Engineering	Sales Account	Sales Account
C.payment Check Post Approve	RMA V. rcv'd RMA V. ship RMA C. rcv'd RMA C. ship	Duration/customer Rate of growth/ period	Duration/customer Rate of growth/ period
Total amount	Total RMA credit	Total \$ Total \$ per cust. % of Avg. of	Unclear inv. Inv. \$ Clear inv., %
Cust. Invoices C.cr.memo	Total RMA items	# of customer	# of vendor
Cust. Payment	RMA	Customer	Vendor

# FIG.116D

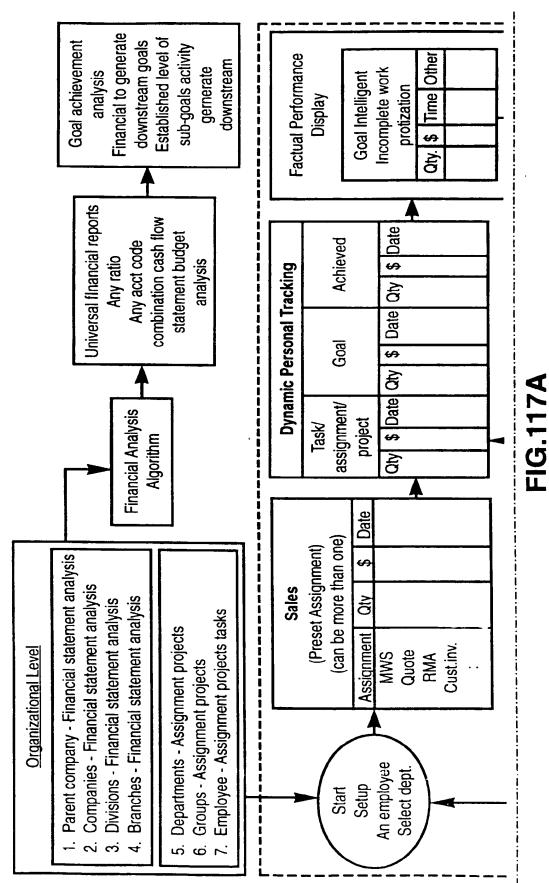
Ш
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二
Τ.
U
正

	Ship/Rcv Install/ Engineering	Customer Service	N
	Sales	Vendor Customer Purchase	NA
	Εχρ. V.cr. V. cr. C. cr. Rec. cr	Exp. V.a. V. cr. C. cr. Rec. cr	Exp. V.α. V. cr. C. cr. Rec. cr
Fax	V. rec.date V. Ship C.rec.date C. ship Create date Fax	V. rec.date V. Ship C.rec.date C. ship Create date	V. rec.date V. Ship C.rec.date C. ship Create date Fax
	A/P Buyer Sales	Sales Purchasing	Accounting Purchasing
	Order date, MWS date, Rec'd date, B/O rec'd date, Item order date	\$/period	
	Scost Pcost	\$ Rate of increase	Total A/P Total A/R
	Total items Total MWS B/O items	# of format	Total V. inv. Total C. inv
	Purchase	Commission/ earning	Financial

Fig. 117

Fig.117A	Fig.117B	Fig.117C
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Company Performance Analysis



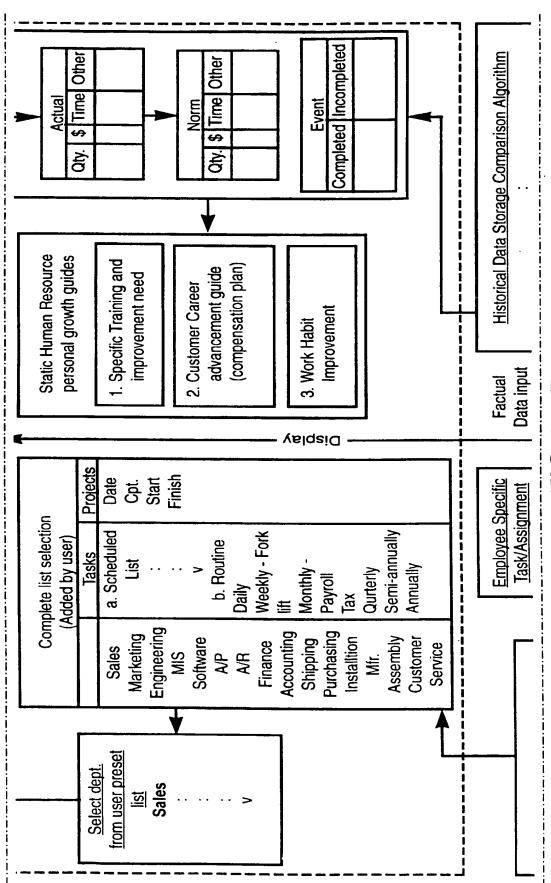


FIG.117B

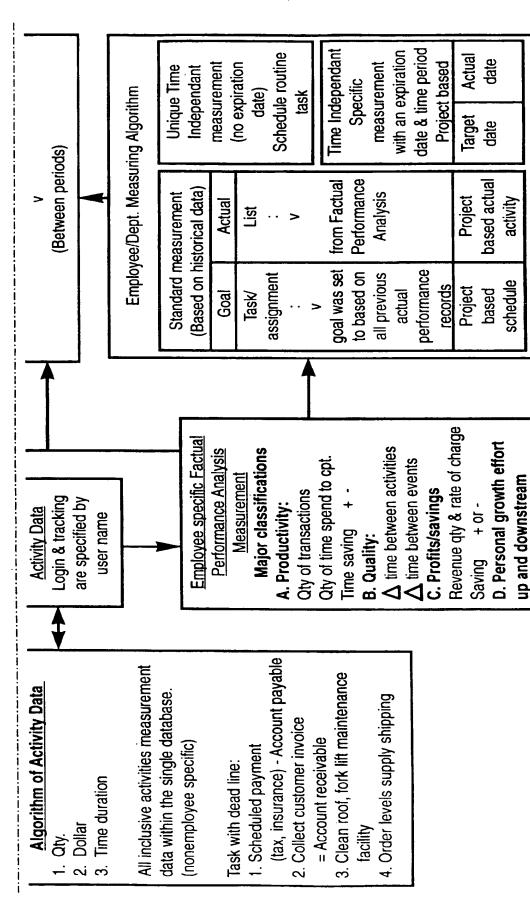


FIG.117C

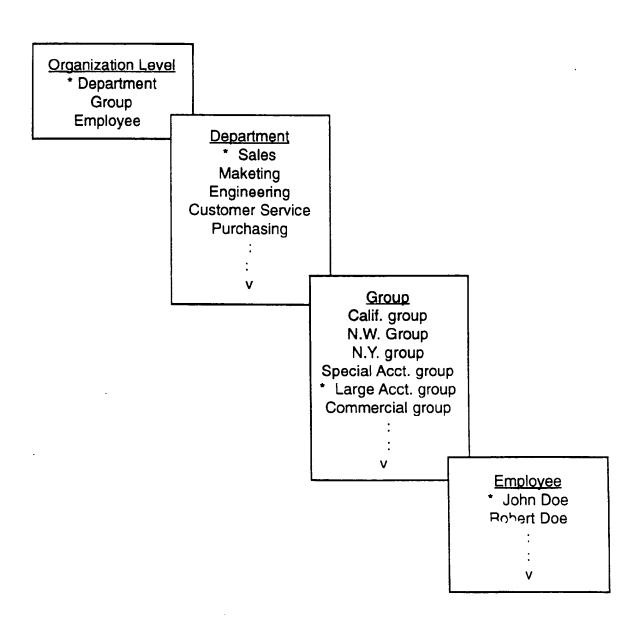


FIG.118

Fig. 119

Fig.119A	Fig.119B	Fig.119C
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FIG.119A

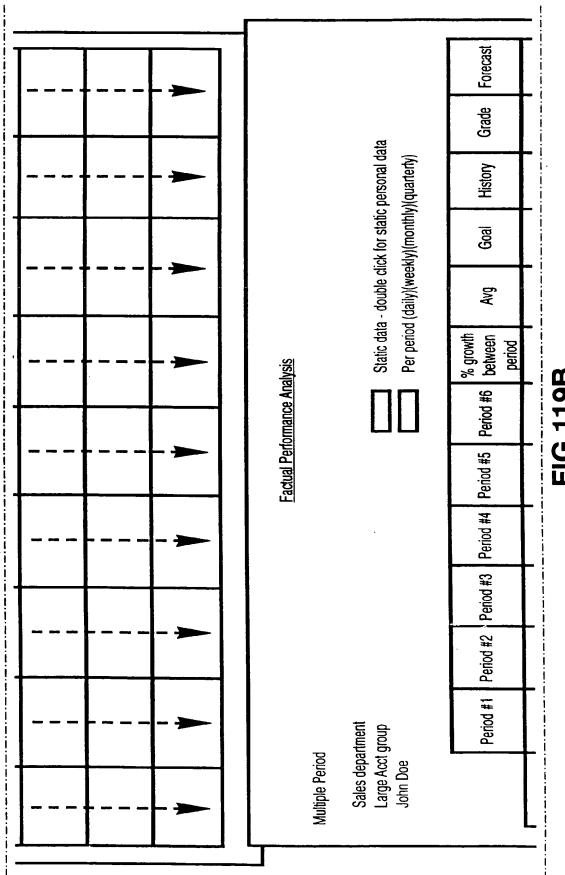


FIG.119B

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ī	

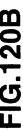
	Measuring Parameter	A/B/C	A/B/C	A/B/C	A/B/C	A/B/C	A/B/C				
	Quotes	ABIC	A/B/C	A/B/C	A/B/C	ABIC	AB/C	`			
	MWS	ABC	A/B/C	A/B/C	A/B/C	A/B/C	ABIC				
	RIMA	A/B/C	A/B/C	A/B/C	A/B/C	A/B/C	A/B/C				
_	Select: A1, A2, A3, B1, B2, C	, A3, B1, B2,	၁							•	

Fig. 120

Fig. 120B
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		Forecast				
	, cg	Grade				
	oersonal dal (quarterly)	History				
	k for static r y)(monthly):	Goal				
	Static data - double click for static personal data Per period (daily)(weekly)(monthly)(quarterty) (Choose a period)	Avg				
<u>Ilysis</u>	Static data - doubl Per period (daily)(( (Choose a period)	% growth between period				
rmance Ana		Period #6				
Factual Performance Analysis		Period #5				
		Period #4				
		Period #3				
		Period #2				
	artment t group	Period #1	A/B/C			
	Sales department Large Acct group John Doe		Measuring Parameter	Quotes	MWS	RMA

FIG.120A



, B8, C
Overall Amount Select: A1, A2, A3, B1, B2, C

Fig. 121

Fig.121A	Fig.121B	Fig.121C

nvoice -pay -ven/ter	ms	In -Fn -Pv	M	VS /atiu - co	ct	PO -b1
1975912-01	1113	5/10/93		3-0085	1	8
ITT	• • • • •	00/00/00		98.80		97
,	N30	3/22/93	Р:	<b></b>	959.	
)		<b>4</b>	<u> </u>			
171613-01		7/1/93	Ħ	Invoices:	n	
ITT		00/00/00		Invoice *	TPO	<u> </u>
CmpLnd	N30	7/1/93	Ħ	4415611-02	屵	· · · · · · · · · · · · · · · · · · ·
			4			
178411-01		7/5/93	ļļ			
ITT		00/00/00		) • • • • • • • • • • • • • • • • • • •		
CmpLnd	N30	7/6/93	4			<del></del>
171612-01		E /10 /07	7	) * * * * * * * * * * * * * * * * * * *		
171612-01	• • • • •	5/19/93 00/00/00	!' <u> </u>			
Combad		5/19/93	ij	·····	<u> </u>	
CmpLnd	1130	3/17/33				
171611-01		4/22/93				
ITT		00/00/00		,		
CmpLnd	N30	00/00/00	F			····
TESTING	••••••					
905011-01		4/14/93	h			******
ITT.	••••	00/00/00	11			
CmpLnd	N30	4/14/93	1			
	•••••••	Mistrice (100 100 100 100 100 100 100 100 100 10				***************************************
415611-02		4/2/93	7	ļ		
ITT		00/00/00				
CmpLnd	N30	4/2/93				1111
				+= -		
	••••			Add D	elete	
	_		1			
Options	] Œ×	clusive) cB	<u>، ۲</u>		hΞ	
Problem		AL MI	_			-    -
Dupes Vendor		So	rt	Sets Fi	nd	New Re

FIG. 121A

Mun IIIANICA2					
<b>a</b> yee	Vendor	RX	Inv Date	Total billed	Tax
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	• • • • • • • • • • • • • • • • • • • •			•	
***************************************					
				OK.	
				OK	
				OK.	

FIG. 121B

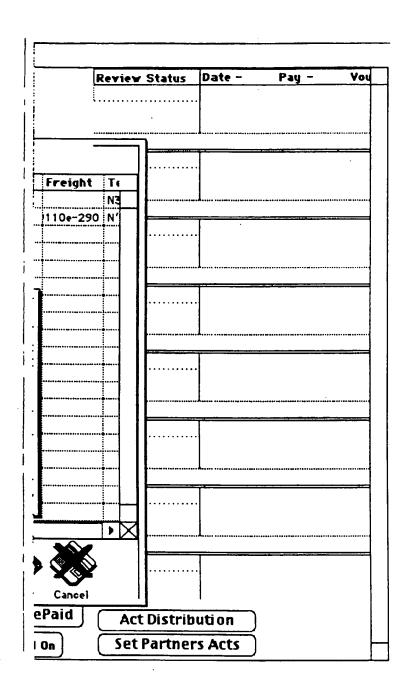


FIG. 121C

Fig. 122

Fig.122A	Fig.122B	Fig.122C

Invo	pice -pay	-ven/terms		MYS /qtg	– cost	PO -billed
<b>35</b> 2		•••••	5/17/98			
RX	ACE	•••••	6/12/98	Invoice	s: 0	
	ACE	N3O	00/00/00	Invoice <sup>4</sup>	PO	Payee
				1234567		ITT
••••	······	• • • • • • • • • • • • • • • • • • • •	<b>,</b>	1234567		•
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<u>る</u>	<b>a</b> [	Options (Exc	lusive	+=	-	
¥	4	Problems	SIUSIVE) C	Add	Delete	
lin	es)	Vendor RMA				

FIG. 122A

lext payment   Status-problem   RMA -Voredit   Disc-Dt-\$-Ls   Cust Add Invoices						
	Vendor		Inv Date	Total billed	Tax	F
	ITT		12/21/97	10,000.00		
*****************************				•		
			: •	•••••••••••••••••••••••••••••••••••••••		
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batci	nave alread h.	Jy ent	ered this	invoice on	this	

FIG. 122B

ny Stats Rev	ie¥ Status	Date -	Pay -
	[[rx]]	6/16/98	- 5,000.00 -
	111		
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ΕN			
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	II		
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₽		<u> </u>	•••••
<b>₽</b>			
	<b> </b>	1	
	rt Distrib	ution )	
Cancel	t Partner	s Acts	

FIG. 122C

322/431-

Fig. 123

Fig.123A	Fig.123B	Fig.123C

Invoice -pay -ven/ter	ms In -En -Ry	MYS /qty -	cost P	0 -billed
1975912-01	5/10/93	M93-0085	1	. 85
ITT	00/00/00			
CmpLnd	N30 3/22/93	Invoices:	0	
		Invoice *	P0	Payee
171613-01	7/1/93	4415611-02		
ITT	00/00/00			
CmpLnd 1	N30 7/1/93			
			1	
178411-01	7/5/93	-		***************************************
ITT	00/00/00	-		
CmpLnd N	N30 7/6/93		···	
		***************************************		
171612-01	5/19/93	***************************************		
ITT	00/00/00			
CmpLnd N	130 5/19/93			
			-	
171611-01	4/22/93		<b></b>	
ITT	00/00/00			
CmpLnd N	130 00/00/00	***************************************		
TESTING				
905011-01	4/14/93			
ITT	00/00/00		<u> </u>	
CmpLnd N	30 4/14/93			
,				
415611-02	4/2/93		□ □	
ITT	00/00/00	SER_ 1		
Options	13	+ = -		
		Add De	lete	
Problems Upes  Vendor Ri	. 71	<u> </u>		

FIG. 123A

Add Invoices    Vendor   RX   Inv Date   Total billed   Tax	Next payment	Status-pro	oblem s	MA -Vere	lit Disc-Dt-\$	-Ls Cust
An Invoice with this invoice number is already entered for this payee!						N
An Invoice with this invoice number is already entered for this payee!		Add invo	ices			
entered for this payee!		Vendor	RX	Inv Date	Total billed	Tax
entered for this payee!						
entered for this payee!		<u>.</u>			•	
entered for this payee!	***************************************					
entered for this payee!						
entered for this payee!	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	· <del> </del>		i		
entered for this payee!		:				:
entered for this payee!				***************************************	•	•
	An In	voice with	this in	nvoice nu e!	mber is alr	eady
	An In enter	voice with red for this	this in	nvoice nu e!	mber is alr	eady

FIG. 123B

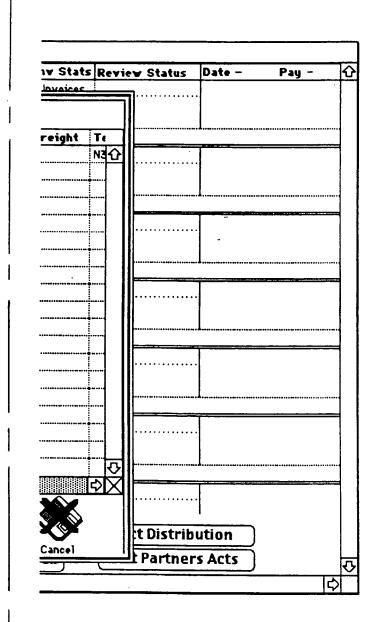


FIG. 123C

Fig 124

Fig. 124A	Fig. 124C	Fig. 124D
Fig. 124B		

📑 File	_	ga Activities Help
	Get all not paid	Ver
	Get not reconciled	
	Get Reconciled	
·	Reconcile with credit	
	Pre-Approve	
	Get Pre-Approve	
	Remove Pre-Approve	
	APPROVE	
	Get approved	There are 1
	Schedule payments	
	Schedule pre-paid payments	
	Get discount paymnents	
	Schedule discount payments	
	Close selection	
	HOLD selection	
	Get Hold	

FIG. 124A

Close selection... HOLD selection... Get Hold Reset status back 1... Edit terms/payment/vouchers... Integrity check Temporary notes Update invoice New Records Return Mark ready for review Get ready to review Mark reviewed Get reviewed **Get Tracking** Mark for Tracking Remove tracking **Tracking notes Current status/Review status** Cash flow analysis **AP Processing** Show Invoice Detail

FIG. 124B

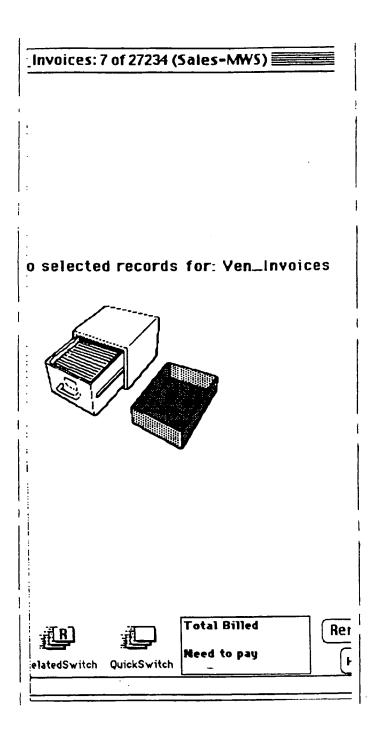


FIG. 124C

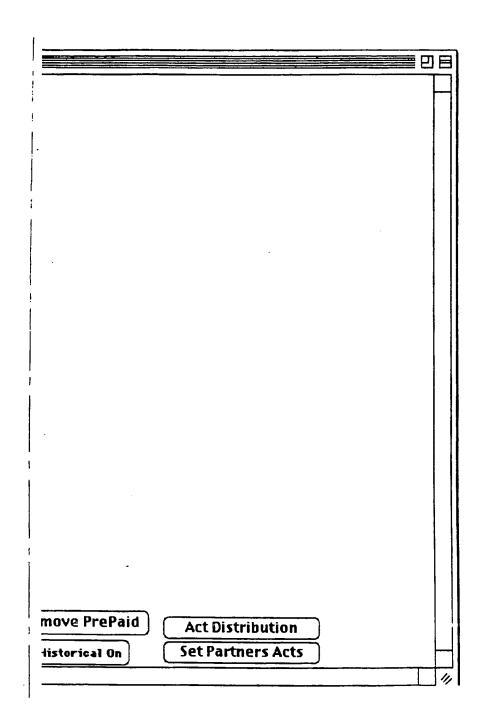


FIG. 124D

Fig 125

Fig. 125A	Fig. 125B	Fig. 125C
Fig. 125D		

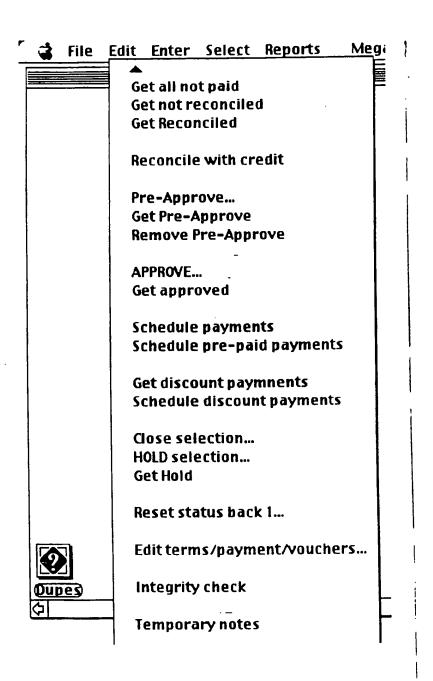
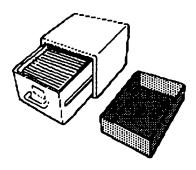


FIG. 125A

a Activities Help

Ven\_Invoices: 0 of 26071 (Sales-MW

There are no selected records for: Ven\_invoice











Total Billed

Records Return RelatedSwitch QuickSwitch

FIG. 125B

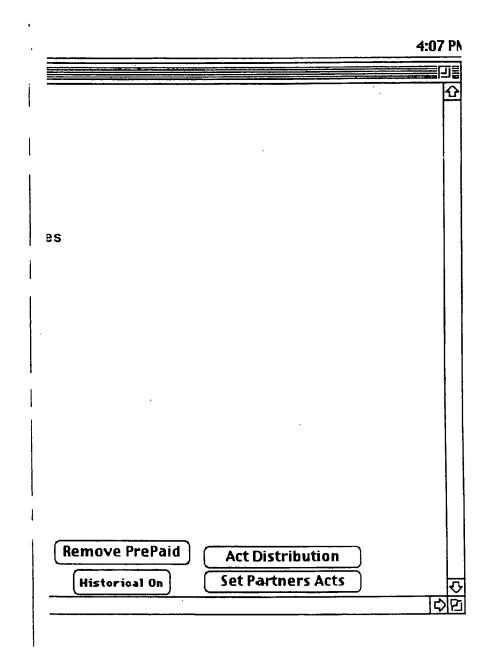


FIG. 125C

Update invoice

Mark ready for review

Get ready to review Mark reviewed Get reviewed

Get Tracking Mark for Tracking Remove tracking Tracking notes

FIG. 125D

Fig 126

Fig. 126A	Fig. 126C	Fig. 126D
Fig. 126B		

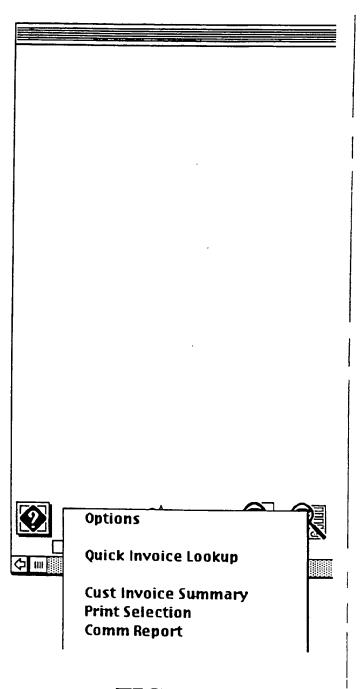


FIG. 126A

Get AR Report selection Get Not Issued Get not paid Get no charge Get pre-paid

Close - No charge

**Split Invoice** 

Join 2 Invoices

Issue Invoices

FIG. 126B

Cust\_Invoices: 0 of 14573 ( There are no selected records QuickSwitch

FIG. 126C

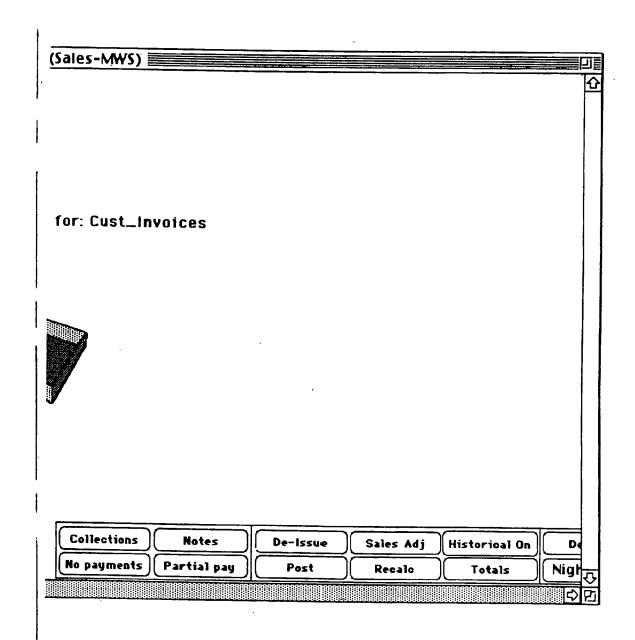


FIG. 126D

Fig 127

Fig. 127A	Fig. 127B	Fig. 127D
	Fig. 127C	

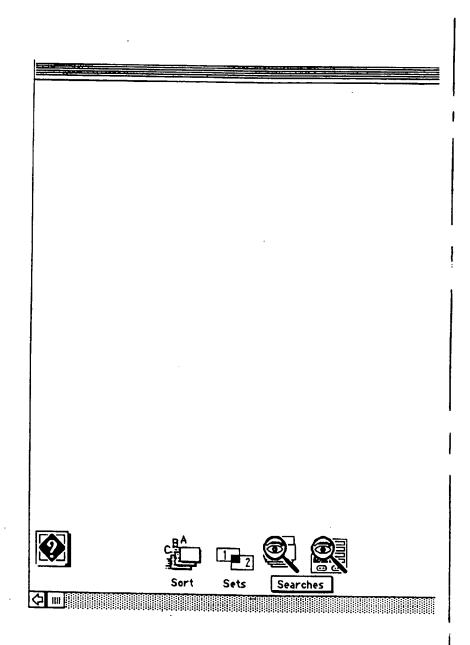
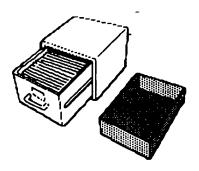


FIG. 127A

Items Sold: 0 of 44942 (Sales-MW

There are no selected records for: Items Sold









Return

RelatedSwitch QuickSwitch

Options

Quick MWS# Lookup... Add MWS to Fast Order...

Open order reports... Expedite/Availability

Customer Notes... CSR Notes...

FIG. 127B

Status (restricted)...

Expand to all items sold Remove shipped Check selection again Update MWSs...

Clear updates

Tech Expedite
Clear Tech Expedite

Get inHouse not royd Receive InHouse

Get Installation not royd Receive Installation

FIG. 127C

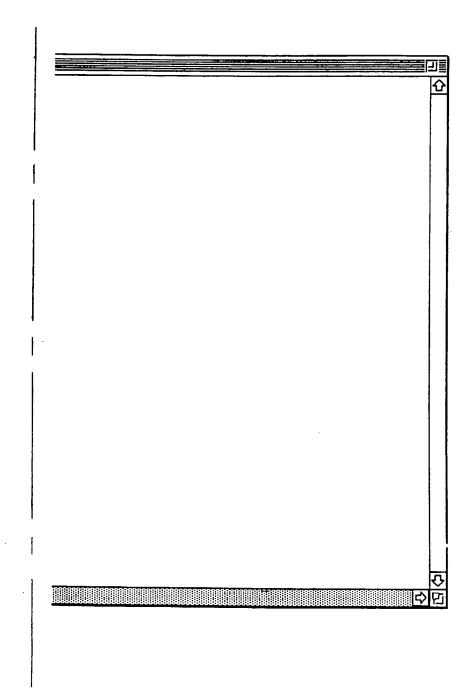


FIG. 127D

Fig 128

Fig. 128A	Fig. 128B	Fig. 128D
	Fig. 128C	

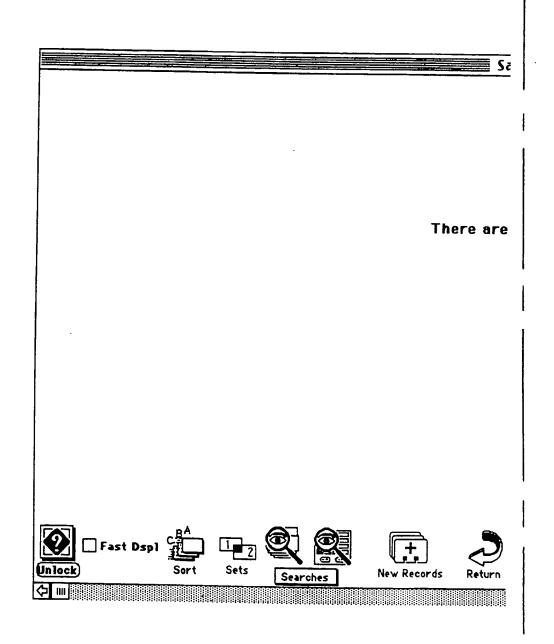


FIG. 128A

iles Records: 0 of 26680 (Sales-MW no selected records for: Sales Records Options Quick MWS # Lookup... Quick Quote \* Lookup... Quick PO/RFQ/PID/PRN LU/Conf... PurchChecks... Real World ... Update MWSs... Expedite/Availability/Purch Urgent... Not Urgent... RelatedSwitch QuickSwitch Daily PO Confirmation... Get Quotes... Print Quote Confirmation...

FIG. 128B

Apple Status...

Quotes requiring REVIEW
Cancel REVIEW

Get purchasing records... Print Purchase summary...

Clear updates

Lock Unlock Get Unlocked

Change TPO to Real PO Get Temporary POs

Get Web Quotes Get PPL Quotes

Get/Create PIDS

Delete protect selection Remove delete protection

Mark selection for deletion Undelete selection

Edit Credit Card Info...

FIG. 128C

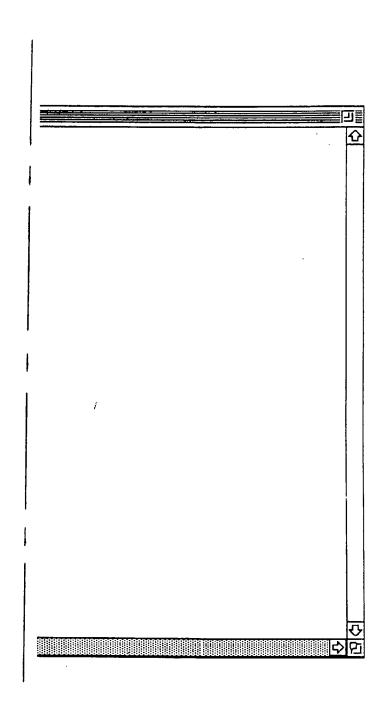


FIG. 128D

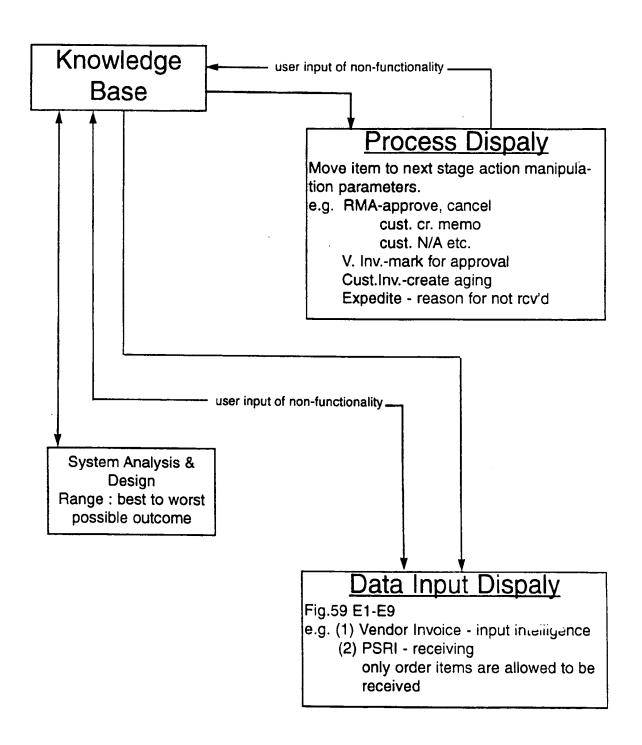


Fig. 129











































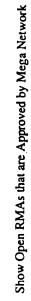














Show Open RMAs that are Pending for approval by Mega Network



Show All Open RMAs

FIG. 131

FIG. 131 A

FIG. 131 B

Home	
10 S 3 T 1	Network
	Mega N
	l by
	(s) that have been approved
	been
	have
	that
Kenmey	RMA
	Open

RMA Number	Date	RMA Type	ltem Manufacturer	Item Description	Part Number	Total RMA Qty	Returned items A Received by Vendor	Total items Replacements RMA Received Shipped Qty by by Vendor	Replacement PO Number
R=301765@R	11/19/98	Credit		HP SURESTORE DAT81 INT DDS-2	42988-65	3	0	0	No Replacement
RESOURSOCK!	11/19/98	Credit	DELL	JAZ IGB EXT SCSI PC/MAC	95187-34	3	0	0	No Replacement
	10/16/98 Credit	Credit	DELL	DELL P6333 GX1/MT+ BASE(66MHZ FSB)W/4MB INTEG VIDEO MEMORY,INTEG	220-0499	4	0	0	No Replacement
[RE310558GRE]	09/21/98   Credit	Credit	LEXMARK INTERNATIONA	VIRTUAL JETPRINTER SUN SOLARIS CD-R	16A0194	-	-	Ō	No Replacement

FIG. 131 A

						The state of the s		Ethorasian (Substanting Property of the Company of	STATE OF THE PARTY	SECTION CONTRACTOR
ment	No Replacement	0	0	_	241700-001	PROLIANT 6500R 6/200 128MB M1-512K NOHD RM FS 16XCD	COMPAQ SERVERS	Lost in transit (RPL MWS)(CLAIM)	03/30/98	Lost in transit COMPAQ (RPL SERVERS MWS)(CLAIM)
ment	No Replacement	O	0	٧.	220-0503	DELL P6266 GX1MT BASE (66MHZFSB) W/4MB INTG VIDEO MEMORY,INTG AUDIO, 512K CACHE	DELL	Credit	86/10/90	(KES11037CR)   06/01/98   Credit

FIG. 131 B

356/431-

FIG. 132

FIG. 132 A

FIG. 132 B

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Rennskrienn
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All open RMA(s)

₹MA Vumber	Date	RMA Type	Item Manufacturer	Item Description	Part Number	Total RMA Qty	Returned items Received by Vendor	Returned Replacements RMA Received Shipped Qty by by Vendor	Replacement PO Number
R-324765 CR	11/19/98 Credit	Credit		HP SURESTORE DAT81 INT DDS-2	42988-65	3	0	0	No Replacement
REPURSOUR	11/19/98 Credit	Credit	DELL	JAZ IGB EXT SCSI PC/MAC	95187-34	3	0	0	No Replacement
Regional	10/16/98 Credit	Credit	DELL	DELL P6333 GX1MT+ BASE(66MHZ FSB)W/4MB INTEG VIDEO MEMORY,INTEG	220-0499	4	0	0	No Replacement
R-319558@R	09/21/98 Credit	Credit	LEXMARK INTERNATIONA	VIRTUAL JETPRINTER SUN SOLARIS CD-R	16A0194	-	_	0	No Replacement

FIG. 132 A

(RE3110370R) 06/01/98   Credit	06/01/98	Credit	DELL	DELL P6266 GX1/MT BASE (66MHZFSB) W/4MB INTG VIDEO MEMORY,INTG AUDIO, 512K CACHE	220-0503	5	0	o l	No Replacement
R=01978@R	03/30/98	Cost in transit (RPL MWS)(CLAIM)	n transit COMPAQ (CLAIM)	PROLIANT 6500R 6/200 128MB M1-512K NOHD RM FS 16XCD	241700-001	_	0	ij	No Replacement

TREMINERALE (PRESIDE RESIDE) (RESIDE) (PROSECUTIVE (PROSECUTIVE HOME

FIG. 132 B



Shipping Reports

Please specify the date range for your shipping report. TOWN THE AMERICAN STREET















































































...now accessing sales records for Southern California Edison.
...if this takes too long please narrow down your range.
...now selecting shipping records between 11/1/98 and 11/10/98.

Total of 37 shipping records found between 11/1/98 and 11/10/98

FIG. 134

Shipping Summary Report













FIG. 135

FIG. 135 A	
FIG. 135 B	
FIG. 135 C	
FIG. 135 D	
FIG. 135 E	

Reduction (Reports) (Application) (Reports) (Reports)

Detail Shipping Reports

Number Manufacturer Descripti	3) simpling twoids found between 11/1/3 and 11/1/9.					
BLACKBOX		Item Description	Part Number	Qty	Show POD	RMA
	H	SERVSELECT TO CPU CABLE 8FT	EHN056-0008		Peop.	n/a
BLACKBOX SERVSELECT 8-PORT		ACKBOX RVSELECT ORT	KV108A-R2		[Bob]	n/a
BLACKBOX KEYBMIR/MS KEYBMIR/MS 5 FT		SERVSWITCH TO KEYBMTR/MSE 5 FT	EHN054-0005	3	(FOD)	n/a
BLACKBOX TO CPU CABLI		SERVSWITCH TO CPU CABLE 10 FT	EHIN051-0010	12	रिविकेश	n/a
BLACKBOX SERVSWITCH 4-PORT		ACKBOX VVSWITCH ORT	SW722A-R3	3	ROBE	n/a
West. Digit 7.200RPM AV ENTERPRISE		6GB SCSI IRA WIDE P 8MS ORPM AV	E4360-0007	4	(ROD)	n/a

FIG. 135 A

n/a	n/a	n/a	n/a
NOTE:	Hole		Pole
8	100	18	8
900-1732	900-1730	430-0118	420-6108
SELECTCARE, NEXT BUSINESS DAY, ON-SITE SERVICE, 2 YEAT EXTENDED, WANG	SELECTCARE, NEXT BUSINESS DAY ON-SITE SERVICE, INITIAL YEAR, WANG	Active Expansion Riser for GXiM/T Systems, 3 PCI/2 Shared/2 ISA Wake up on Lan	WINDOWS '95 CD ROM, OSR 2.1, FACTORY INSTALL
DELL	DELL	DELL	DELL
E102890540000000001=12981			

FIG. 135 B

п/а	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a	n∕a
1004	.ब <b>ं</b> ड	্ৰভ্ৰম	(Rejer	[doal]	lecad	ideal)	FGG GH	TOOH	idod:
100	100	100	8	200	100	100	100	8	16.0
420-0137	340-0740	340-0701	320-3316	313-0524	311-0515	311-0509	310-2268	310-0038	310-0019
FAT32, FILE SYSTEM, WINDOWS 9X, FACTORY INSTALL	6.4GB IDE HARD DRIVE, GX1, M/T, 350+ MHZ, FACTORY INSTALL	3.5" 1.44MB FLOPPY DRIVE, FACTORY INSTALL	MONITOR OPTION-NONE	14-32X CD ROM, IDE, FACTORY INSTALL	64MB, NON-ECC,SDRAM, 1 DIMM, UPGRADE, GX1, 350+MHZ, FACTORY INSTALL	64MB, NON-ECC, SDRAM, 1 DIMM, 100MHZ, GXI, 350+ MHZ	REDUCED DOCUMENTATION FOR GXaEM/GNL SYSTEMS, FACTORY INSTALL	PERFORMANCE 104 KEY KEYBOARD FOR WINDOWS 95 FACTORY INSTALL	MICROSOFT SYSTEM MOUSE
DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL

FIG. 135 C

35
-
5

n/a	n/a	n/a	n/a	n/a	n/a	n/a	n/a
	adoa)	GOOT	(ROD)		<u> XADAJ</u>		P.O.
100	30	30	30	30	30	30	30
220-0501	36637-41	310-0039	365-0366	365-0257	360-7371	360-5087	360-4801
DELL P6400GX1/MT+ BASE(100MHZ FSB)W/4MB INTEG VIDEO MEMORY & AUDIO, 512K CACHE	MOUSE MSE SER &PS/2	Performance 104 Key Keyboard for Windows 95. Customer Install	DELL INTEGRATION FEE	DELL PLUS ROUTIN SKU	DELLPLUS SCE CONSIGNED WINDOWS 95 IMAGE FOR THE LATITUDE CP, FACTORY INSTALLED	DP CONSIGNED LABEL SCE	DELL PLUS INFO SKU MANUAL SFTWARE INSTALLATION
DELL	DELL	DELL	DELL	DELL	DELL	DELL	DELL
	RELIGIASSOCIADOS CONTRADOR						

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n/a	n/a	n/a	n/a	n/a	n/a	n/a
idea.	Tao and		Hoar	<b>Management</b>	100	34034)
30	30	30	30	30	30	30
0561-006	420-0541	340-2166	313-0236	311-0342	310-3043	220-0386
Selectcare, Initial Year, Next Business Day On-Site Service Contract, BSC*	WIN95, W/CD all Latitude CP Factory Install	6.4 GB HD, 12.5MM, LATITUDE CP FACTORY INSTALL	20X CD ROM, INTERNAL/EXTERNAL LATITUDE CP FACTORY INSTALL	64MB, IDIMM, EDO, LATITUDE CP FACTORY INSTALLED	No Modern For All Dell Notebook	LATITUDE CP, M233ST, 12.1" SVGA, TFT, FACTORY INSTALLED
DELL	DELL	DELL	DELL	DELL	DELL	DELL

For total of 3 Purchase Orders,

Total of 37 line items shipped between 11/1/98 and 11/10/98.

You may use your browser's Back button to return to previous screen.







FIG. 135 E

Tracking - Sales Order Status

Get Freight Carrier & Tracking

CABLE 8FT. PO# E1028903-00000001-1301 SERVSELECT TO CPU CABLE 8FT- PO# E1028903-00000001-1301
SERVSELECT TO CPU CABLE 8FT- PO# E1028903-00000001-1301
SERVSELECT TO CPU CABLE 8FT- PO# E1028903-00000001-1301
SERVSELECT TO CPU CABLE 8FT- PO# E1028903-000000001-1301
SERVSELECT TO CPU CABLE 8FT- PO# E1028903-000000001-1301
SERVSELECT TO CPU CABLE 8FT- PO# E1028903-000000001-1301 Shipped \*\*. SERVSELECT TO CPU The carrier for

Click here to request the status of your order by e-Mail.

Search Options Search Options Customer Credit Option 3. Customer PO# Option 5. PRN # Option 7. Date purchased Calectinodill Continued Calectinodill Calectin
--

**-1G. 137** 

10/15/98

1067082

0.0

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92.60

Paid in full

Customer

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10/6/98

1063421

See Related Records

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820.54

Paid in full

Customer

ESTOSSES TOSOSOSOS ESTABLISTA

86/2/6

**HARIO** 

9/29/98

1059570

See Related Records

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303,668.00 303,668.00

Paid in full

Customer

10/6/98

1063421

See Related Records

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113.66

113.66

Paid in full

Customer

TEROS SOCIETO DO COMO DE PROSE

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Select to See Related Records

Check Date

Check Number

Packing Slip

Balance

Paid Amount

Status||Amount

Invoice Type

Number

Invoice Date

Invoice

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9/29/98

1059570

See Related Records

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6,825.99

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Paid in full

Customer

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1059570

See Related Records

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Customer

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Home	
N. C. COLLEGE	
Tracental	
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## Customer Invoices

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FIG. 139

FIG. 139 A
FIG. 139 B
FIG. 139 C
FIG. 139 D

## MEGA NETWORK INVOICE

785 Palomar Avenue, Sunnyvale, CA 94086 Phone (408) 730-9138 \* Fax (408) 720-1293

No. 17469

Customer September 1, 1998

For: S	OUT	TERN C	SOUTHERN CALIFORNIA EDISON	EDISON					
PO N	Num:	E10289(	E1028903-000000001-1136	1136		RFQ: 1136	RFQ: 1136 PRN: 105004		
Contact:		CRAIG W	WILSON (626) 302-6388	302-6388		Fax: (626) 302-4048	302-4048		
Bill To:	SOU7 2244 Roser Att: A	SOUTHERN CALIFC 2244 WALNUT GRO Rosemead, CA 91770 Att: ACCOUNTS PA	SOUTHERN CALIFORNIA EDISON 2244 WALNUT GROVE AVE., RM#210 Rosemead, CA 91770 Att: ACCOUNTS PAYABLE	DISON RM#210	Ship To:	SOUTHERN CALIFOI 501 S. MARENGO ST BLDG D. SMART#10 Alhambra, CA 91803 Att: BANCTEC	SOUTHERN CALIFORNIA EDISON 501 S. MARENGO ST BLDG D, SMART#105004 Alhambra, CA 91803 Att: BANCTEC	) EDISON	
Sales	Person	u	Order Date	Ship Via	Terms				
Charles			August 6, 1998	Ground	N30				
Oty ord	Unit	Qty Sbip'd	Description				Part Number	Unit Price	Extended Price
12		12	RACK 7142 42U (7FT) W/DOOR	U (7FT) W/E	OOR		165753-001	1,460.55	17,526.60
12		12	SIDEWALL KIT (LEFT/RIGHT) 7142 42U COMPAQ RACK	IT (LEFT/RIC SK	іНТ) 7142 42	D.	165652-001	194.50	2,334.00
	each		COMPAQ RACK 7122	CK 7122			163747-001	1,615.53	1,615.53
3	each	3	COMPAQ PROLIANT 850R 6/200H: MODEL1 (HP MODEL)	LIANT 850F	k 6/200H: MC	орегі (нР	167200-06.1	2,531.62	7,594.86
2	each	2	PROLIANT 1600T 6/300	00T 6/300			333550-001	2,434.25	4,868.50
-	each		PROLIANT 3000 6/333 P2-333 512K 64MB MODEL 1	00 6/333 P2-3	33 512K 641	MB MODEL	179740-001	4,182.92	4,182.92

FIG. 139 A

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18,416.84	212,865.12	27,556.78	87,633.00	3,555.48	2,300.60	44,904.09	124,400.97	11,678.10	10,666.44	3,137.16	57,881.94	3,915.24
4,604.21	11,825.84	13,778.39	1,460.55	888.87	1,150.30	583.17	1,011.39	1,946.35	1,777.74	522.86	1,702.41	652.54
179750-001	241700-001	273350-005	169470-B21	298047-B21	333555-B21	272577-001	313706-B21	313756-B21	304100-B21	224206-001	295242-B21	225484-001
PROLIANT 3000R 6/333 P2-333 512K 64MB MODEL 1	PROLIANT 6500 6/200 128MB M1-512K NOHD RM FS 16XCD	PROLIANT 7000 6/200-512: MODEL 1S-128 (128 MB)	6/200 512K PROC OPT KIT PROLIANT 6500 7000	6/300 PENTIUM II 512K PROCESSOR OPTION KIT	PROLIANT 3000 6/333 512K UPGRADE KIT	4.3GB PLUGGABLE W/ULTRA 1.0IN 7200RPM SCSI-3 HD	9.1GB PLUGGABLE W/ULTRA 1.0IN SCSI-3 7200RPM HD	18.20GB PLUGGABLE WIDE-ULTRA SCS13 DRIVE (1.6")	PROLIANT STORAGE SYS /UI RM SINGLE BUS ULTRAWIDE	REDUN P/S KIT PROLIANT STORAGE/F	SMART-2DH PCI 2CH ARRAY CONTROLLER W/16MB CACHE	128MB EDO MEM EXPANSION KIT (1 X 128MB, 60 NS)
4	18	2	99	_4	2	77	123	9	9	9	34	9
cach		each		each	each			each				each
4	18	2	09	4	2	77	123	9	9	9	34	9

,	**	10 75	i	·	_	·	,==	1							
	2,777.44	12,935.55	8,335.50	3,132.92	1,984.71	2,175.04	10,666.44	1,345.76	3,398.59	14,422.33	15,062.32	10,428.02	1,223.50	6,305.76	1,019.58
	1,388.72	2,587.11	2,778.50	223.78	152.67	67.97	888.87	103.52	261.43	759.07	579.32	5,214.01	611.75	6,305.76	1,019.58
	271910-001	241 <i>7</i> 73-B21	219285-001	308006-001	185152-001	165638-001	242694-001	303606-B21	303607-B21	294013-001	227-00367	242520-B21	295192-B21	223100-001	234453-001
	256MB DIMM 60NS BUFFERED ECC EDO 2500 PROLIANT	512MB KIT (4X128MB DIMMS) 60NS EDO ECC PROLIANT	512 MB MEM EXPANSION KIT (4 X 128 MB FP DIMMS)	MULTISCAN V55 15IN 13.7VIS .28MM 10X7 COLMON	RACK INTERNAL TRACKBALL KEYBOARD RM	RM 9 FOOT CPU TO SWITCH CABLE KIT (backorder on part# 165638-002 20 ft cable)	RM 4PT KYBD MON MOUSE SWBX 1U	RACK MONITOR / UTILITY SHELF KIT	RACK KEYBOARD DRAWER SHELF KIT	COMPAQ REMOTE INSIGHT BOARD/PCI	MOLPA NT SVR V4.0 WNT 15 UNITS	35/70GB DLT DRIVE INT BARE TD SCSI-3 IF	DLT 35/70 TAPE CARTRIDGES (7-PACK)	FIBER CHANNEL ARRAY KIT	FIBER CHANNEL STORAGE HUB 7
	2	2	3	41	13	32	12	[3]	13	19	26	2	2	_	_
Ĺ			each							each			each	cach	each
	2	5	3	14	13	32	12	13	13	19	26	2	2	_	1

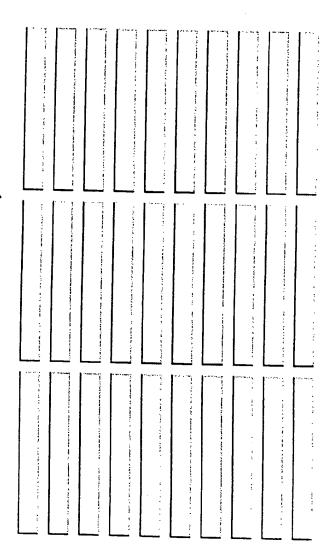
FIG. 139 C

each		FIBER CHANNEL HOST CONTROLLER KITP	223180-B21	1.673.17	1 673 17
cach	4	HOT-PLUG DRIVE CAGE (5 X 1) OPTION KIT	271912-001	156.86	⅃Ĺ
each	2	COMPAQ TOWER TO RACK CONVERSION KIT	149068-001	418 28	
cach		RACK-MOUNTABLE UPS MODEL R1500	242704-001	962.07	
	13	512MB KIT (4X128MB DIMMS) 60NS EDO ECC PROLIANT	241773-B21	2,587.11	33,
each	13	256 MB MEM KIT (2 X 128 MB BUFFERED EDO DIMMS)	149026-B21	1,342.72	17,455.36
each	12	COMPAQ REMOTE INSIGHT BOARD/PCI	294013-001	759.07	9 108 84
nts				Sale Amount	6,305.76
				Tax @	520.23
				Installation	
			,	Freight	
				Balance Due	6,825.99

FIG. 139 D



Please enter as many invoice numbers as you wish.





376/415-

FIG. 141

FIG. 141A	FIG. 141B
FIG. 141 C	FIG. 141 D

State	7/15/98 Addendum Printed STX 194 7/14/98 Addendum Printed STX	STxPaid UNION NI OL C13) 7 STxPaid (213) 7 STxPaid	BAN BAN	2961 37 the 2961 100132	M98-28010 6310013255 604 40 145.05 55 M98-28010 6310013255 604 40 459.35	6310013255 145.05 6310013255 459.35
UNION BANK OF CALIFORNIA   Freebens   (213) 720-2983 mi   Ticklers   (213) 720-2983 mi   (213) 720-2983	98 8/19/98 Replacement Printed STX	: O:	18 UF CALIF 1983 mi R-318314RP			20 × 20
1 (213) 720-2983 mi Cancel Cancel (21 (213) 720-2983 mi Cancel (21 (213) 720-2983 mi	51 10/12/98 Customer Printed 36	אַני בּי בּי	oraine (21 CALIFORNIA (21 213) 720-2983 mi (21 13) 720-2983 mi (21 13) 720-2983 mi (21 14 16 16 16 16 16 16 16 16 16 16 16 16 16	Frnblem≥ Ticklers		1
•	ح 00	O O	20-2983 mi BANX OF CALIFORNIA	Cancel	) X	

FIG. 141 A

1	57 5.510014482 57 3,504.57 1 8,504.57	L-g				Invoice distr to date Stub paid to date	Crdits taken to date Stub credits to date	yout	Invoice specific keyvord	0 4	
Diviorative   Diviorative	213) 720-2961 3.504	` I	Action Date Comments		Comments	459.35	159.35	pply to Selection in Output La		<u> </u>	•
17123 17123 17398		Problems	◆ Problem codes ◆	Þ	Resolved	Get	25 Get	S	34 Get	77 Get	3

FIG. 141 C

	Frt-Tx-RMA Credit summary 8.34				10/6/98, do nothere invoice, need to lex it R-315879XSM / Temp27849-1 10/22/98, Item is not on po					
	Frt-TX-RMA	10 71	33.92	39.90 36.59	roice, need to fa	383.30 750.20	165.21 366.19	-	152.36 300.86	
lles-Mu	Age: 140	80	Age: 141	 Age: 105 39.90	b nothere in	Age: 51 30	Age: 55 30		Age: 51 30	
. 16977 (Sales-Mu	Deen Coen	145.05 90 10.71	Open 459.35	 Open 520.03	10/6/98, 4	Open Age: 51 383.30 11,113.50 30 750.20	Open 5,322.40		Open 4,455.22	

FIG. 141 B

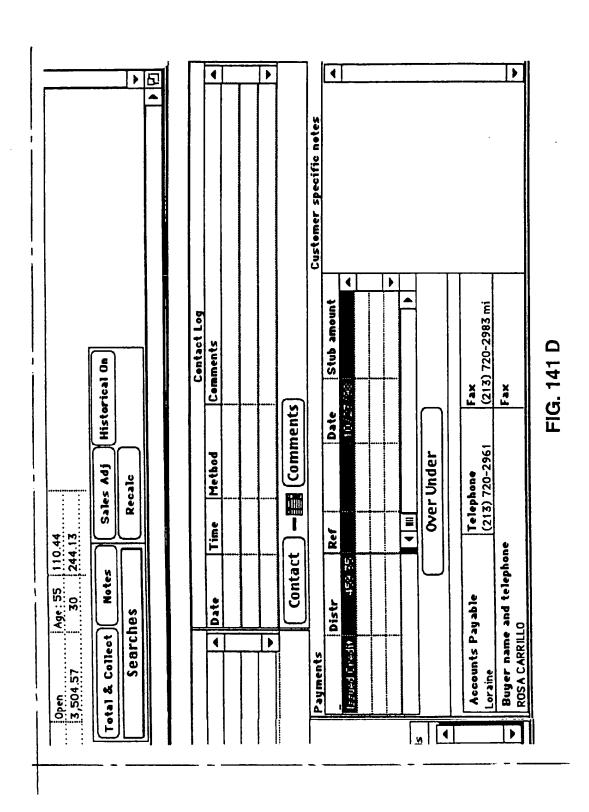


FIG.142

FIG. 142 A	FIG. 142 B
FIG. 142 C	FIG. 142 D

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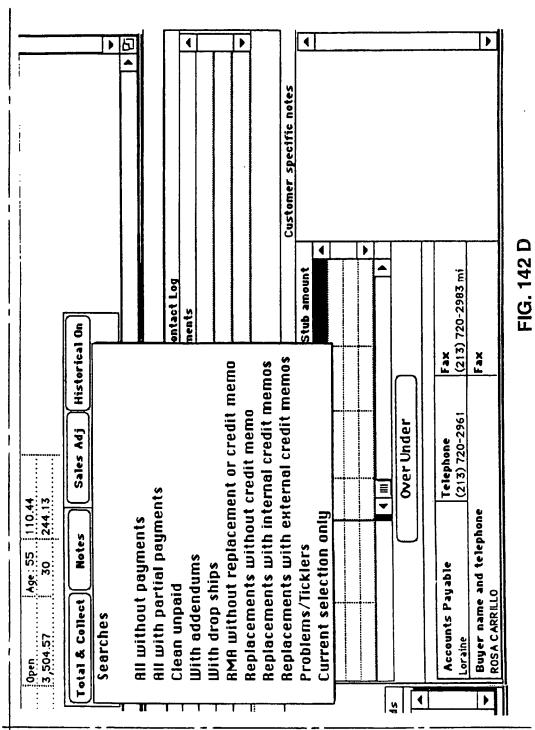
Invoice-Date-I	erm-Type	erm-Type Customer	¥ Customer PO	MWS /qty- To	# Customer PO MWS /qty- Total PO- Invoiced
17123		UNION BANK OF CALIFORNI	•	M98-28010	6310013255
7/15/98	Z	NIOLoraíne	(213) 720-2961	604.40	145.05
Addendum		20-2983 mi	6310013255		
Printed	STxPaid	(CP: Prixe)	9/21/98, used all the item on po	n on po	
17094		UNION BANK OF CALIFORNIA		M98-28010	6310013255
7/14/98	S	N10 Loraine	213) 720-2961	604.40	459.35
Addendum		720-29	255		
Printed	STxPaid	9/21/98,1X	9/21/98, no Item left on po		
17398		UNION BANK OF CALIFORNIA		M98-28263	6310013400
8/19/98	N30	N30 Loraine	213) 720-2961	520.03	520.03
Replacement		720-2	6310013400		
Printed	STxPaid	R-318314RP	R-318314RP (Temp28263-1) Approved: 8/24/98 R-315879XSM (Temp27849-1;	8/24/98 R-315	879XSM (Temp27849
17651		UNION BANK OF CALIFORNIA	DRKIA	M98-28466	6310014479
10/12/98	O.N	N10 Loraine	213) 720-2961	11,113.50	11,113.50
Customer		(213) 720-2983 mi	6310014479		
Printed					
17636		UNION BANK OF CALIFORNIA		M98-28472	6310014479
10/8/98	O.Z	N10 Loraine	213) 720-2961	5,322.40	5,322.40
Addendum		(213) 720-2983 mi	479		
Printed					
17654		UNION BANK OF CALIFORNIA		M98-28471	6310014482
10/12/98	Z	NIOLoraine	213) 720-2961	4,455.22	4,455.22
Customer		(213) 720-2983 mi	482	***************************************	

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	1	III											 		_
	Frt-Tx-RMA Credit summary							10/6/98, do nothare invoixe, need to fax it R-315879XSM / Temp27849-1 10/22/98, item is not an po							
	Frt-Tx-RM	Age: 140 8.34	10.71	26.43	33.92	39.90	36.59	roice, need th	383.30	750.20	165.21	366.19	152.36	300.86	
iles-M∐≣		l	: : ;	Age: 14	96	Age: 105	90 36.59	o nothere in	Age: 51	30		30	Age: 51	:	
. 16977 (Sales-MIL	Left to pay Age	Open	145.05	Open	459.35	Open	520.03	10/6/98, 4	Open	11,113.50 30 750.20	Open	40	Open	4,455.22	

Continue   Continue	Tickler Log	Action Date Comments			Tickler ) 🗕 🛅 (Comments)	Invoice total Invoice distr to date Stub paid to date 459.35	Credits Issued Crdits taken to date Stub credits to date 459.35	☐ Apply to Selection in Output Layout	Invoice specific notes hvoice specific keyvor	9/21/98, no item left on po	+ 1	
raine		Tickler			Tick	Get	Get	Get	Get	Get	Get	Get
Ins Cart Sort	Problems	Problem codes		•	+ Resolved	Problem/Tickler:	Current (37) \$160,974.25	30 days (3) \$7,326.55	45 days (6) \$28 889.34	60 days (3) \$72,010.77	90 days (3) \$1,124.43	All (52) \$270,325.34
3.8 10/8/98 Optio	nvoice	<b>→ 1500</b> 2	17123 17398	1	1 1		11					Þ

FIG. 142 C



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FIG. 143

FIG. 143 A	FIG. 143 B
FIG. 143 C	FIG. 143 D

STxPaid STxPaid STxPaid STxPaid N30	NK OF CALIFORNIA (2 2983 mi (CP:Price) 9/21/5 NK OF CALIFORNIA (2 2983 mi 9/21/99, no item is 9/21/99, no item is CONTROLLIA NK OF CALIFORNIA (2 CONTROLLIA (2 CONTROLLIA (3 CONTROLLIA (4 CONTROLLIA (5 CONTROLLIA	/qty- Total 28010 28010 28010	6310013255 145.05 145.05 6310013255 459.35 6310013400
STxPaid STxPaid STxPaid STxPaid N10	ANK OF CALIFORNIA  (213) 720-2961  (213) 720-2961  (22) 87 ince 3/21/99, used 3/1 that  ANK OF CALIFORNIA  (213) 720-2961  (213) 720-2961  (213) 720-2961  (214) 99, no item left on po  ANK OF CALIFORNIA  (21)  (21)  (21)  (21)  (21)  (21)  (21)  (22)  (22)  (22)  (23)  (24)  (24)  (24)  (24)  (25)  (25)  (25)  (26)  (26)  (26)  (27)  (27)  (27)  (28)  (28)  (29)  (29)  (20)	28010 28010 3	10013255 5.05 10013255 9.35
ST×Paid ST×Paid ST×Paid ST×Paid N10	0-2983 mi 6310013 (CP: Prixe) 9/21/98, used 311 ths.  ANK OF CALIFORNIA (213) 720-2961 0-2983 mi 6310013 9/21/98, no item left on po ANK OF CALIFORNIA (21) (21) (21) (22) (22) (23) (24) (24) (24) (25) (25) (26) (26) (26)	28010	5.05 10013255 9.35 10013400
STxPaid STxPaid STxPaid N10	0-2983 mi 6310013 (CP: Price) 9/21/98, used all the ANK OF CALIFORNIA (213) 720-2961 0-2983 mi 6310013 9/21/98, no item left on po ANK OF CALIFORNIA (21) (21) (21) Select R-318314RP (Temp28) Choices	28010	9.35
STxPaid STxPaid STxPaid N10	ANK OF CALIFORNIA  (213) 720-2961  0-2983 mi 6310013  9/21/99, no item keft on po  ANK OF CALIFORNIA  (21)  (21)  Select  R-319314RP (Temp28)  Choices	28010 ) 28263	9.35
ST×Paid N30 N30 N10 N10	213) 7 213) 7	M98-28010 604.40 M98-28263	9.35
STxPaid N30 N30 N10 N10	22.33.7	604.40 M98-28263	9.35
STxPaid N30 STxPaid N10	29 21 Feft on	H98-28263	10013400
STxPaid N30 STxPaid N10	221	H98-28263	10013400
N30 STxPaid N10	293	M98-28263	10013400
STxPaid STxPaid N10	28.		
ST×Paid N10	314RP (Temp28)		
STxPaid N10	814RP (Temp28)		
OIN			
OIN	UNION BANK OF CALIFORNIA	Edilling address disorepanal	1801
Z O	77	İ	III
NIO		_	
NIO	Ext Credit		kists
0.1X	UNION BANK OF CALIFORNIA	Freight discrepancy internal credit	icto
	213		
•		Invalid PO number	Þ
Printed			
	UNION BANK OF CALIFORNIA	Cancel	OK OK
/12/98 NIO			
Customer (213) 720-2983 mi			***************************************
Petrina			

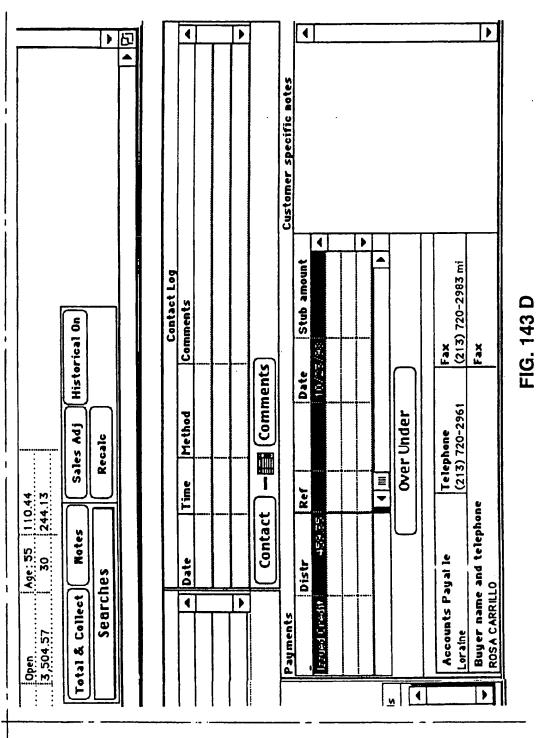
FIG. 143 A

1	m		
Left to pay   Age   Frt-Tx-RMA   Credit summary	8.34 10.71	33.92	Open     Age: 55     36.59       10/6/39, do not have invoice, need to fax if R-315879XSM / Temp278M9-1 10/22/99, item is not on poor 11,113.50       Open     Age: 51     383.30       11,113.50     30     750.20       Open     Age: 55     165.21       S,322.40     30     366.19       Open     Age: 51     152.36       Open     Age: 51     152.36       4,455.22     30     300.86
Age	Age: 140 90	Age: 141	Age: 105 90 90 Age: 51 Age: 55 Age: 55 30 30
Left to pay	0pen 145.05	Open   Age: 141 459.35   90	Open     Age: 105       520.03     Age: 105       10/6/98, do not have in Open     Age: 51       11,113.50     30       5,322.40     30       Open     Age: 55       6,455.22     30

FIG. 143 B

IFORNIA (213) 720-2961 3 504 57 3,5	Search New Records Return Relateds Witch Unkks witch	Tickler Log	Action Date Comments			er	Invoice total Invoice distr to date Stub paid to date 459.35	Credits Issued Crdits taken to date Stub credits to date 459.35	☐ Apply to Selection in Output Layout		9/21/98, no item left on po		
raine	Sets		Tickler			Tickler	l Get	<del></del>	] (et)	Get In	get %	Get	Get
NIO VIO	sply Sort	Problems	Problem codes		•	+ Resolved	Problem/Tickler:	Current (37) \$160.974.25	30 days (3) \$7,326.55	45 days (6) \$28.889.34	60 days (3) \$72,010.77	90 days (3) \$1,124.43	AII (52) \$270,325.34
17638 10/8/98	Fast0		Investor Frozes A	17123	9667								•

FIG. 143 C



391/471-

FIG. 144

FIG. 144 A	FIG. 144 B
FIG. 144 C	FIG. 144 D

	4	
	4	
	4	
•	5	
	Ĭ	
•	_	

Invoice-Date-Te	erm-Type	rm-Type Customer *	Customer PO	¥ Customer PO MWS /qty- Total PO- Invoiced	al PO- Invoiced
17123		UNION BANK OF CALIFORNIA		M98-28010	6310013255
7/15/98		NIO Loraine (213	(213) 720-2961	604.40	145.05
Addendum		'20-2983 mi	255		
Printed	STxPaid	(CP: Prixe) 9/21/98, used all the Item on po	, used all the Item	od vo	
17094		UNION BANK OF CALIFORNIA		M98-28010	6310013255
7/14/98	0 Z	NIO Lorathe (213	(213) 720-2961	604.40	459.35
Addendum		′20-2983 mi	255		
Printed	STxPaid	9/21/98, no item left on po	tonpo		
17398		UNION BANK OF CALIFORNIA		M98-28263	6310013400
8/19/98		N30 Loraine (217	(21, \$20-2961	520.03	520.03
Replacement		720-2983 mf	Colocat		
Printed	STxPaid	R-318314RP (Temp28	אבובר רייי		
17651	1	UNION BANK OF CALIFORNIA	Choices		
10/12/98		NIO Loraine (21	Check Cur	liste check expected to be our	◆ tip ed to be out
Customer		(213) 720-2983 mi	Cust Call Back	Next date to call customer	] customer
Printed			Cust Will Call	Customor requests on vil	promised to call
17636		UNION BANK OF CALIFORNIA	Fax Invoice	Customer wants invoice faxed	invoice faxed
10/8/98		N10 Loraine (21			•
Addendum		(213) 720-2983 mi	■ ▼		•
Printed					
17654		UNION BANK OF CALIFORNIA	Cancel		OK
10/12/98	OZ	N10 Loraine (21			
Customer		(213) 720-2983 mi			
Printed					

	1	101	 				 		
	FTI-IX-KIA Credit summary	,			10/6/98, do nothere invoice, need to lax it R-315879XSM / Temp27849-1 10/22/98, item is not on po	383.30 750.20			
		10.71	33.92	39.90	۲٥ن٥٠	383.3( 750.2(	165.21	152.36	
	Age	Age: 140	Age: 141   90	Age: 105 39.90	o nothare in	Age: 51 30	 1 : : 1		
1 56 45 23.	Leit to pag	Open   Age : 140 8.34 145.05 90 10.71	Open 459.35	Open Age: 105 39.90 520.03 90 36.59	10/6/98, 4	Open Age: 51 383.30	Open Age: 55 5,322.40 30	Open   Age: 51 4,455.22 30	

FIG. 144 B

Loraine         (213) 720-2961         8,504.57         3,504.57           The 2         1         1         1           Sets         Sets         Return         RelatedSwitch		Tickler Log	Action Date Comments			Tickler <b>– m</b> (Comments)	Invoice total Invoice distr to date Stub paid to date 459.35	Credits Issued Crdits taken to date Stub credits to date 459.35	☐ Apply to Selection in Output Layout	Invoice specific notes   Invoice specific keyword	9/21/98, no item left on po		
oraine  The 2			Tickler			Tick	130	66	Get	Get	Get	Get	(Jeg
NIO IONS CHA		Preblems	Problem codes		•	+ 🖺 Resolved	Problem/Tickler:	Current (37) \$160,974.25	30 days (3) \$7,326.55	45 days (6) \$28,889.34	60 days (3) \$72,010.77	90 days (3) \$1,124.43	All (52) \$270,3 25.34
17638   10/8/98   <b>Qoptio</b>   Fastb	<b>Ⅲ</b>	Invoice	→ F0034	17398									•

FIG. 144 C

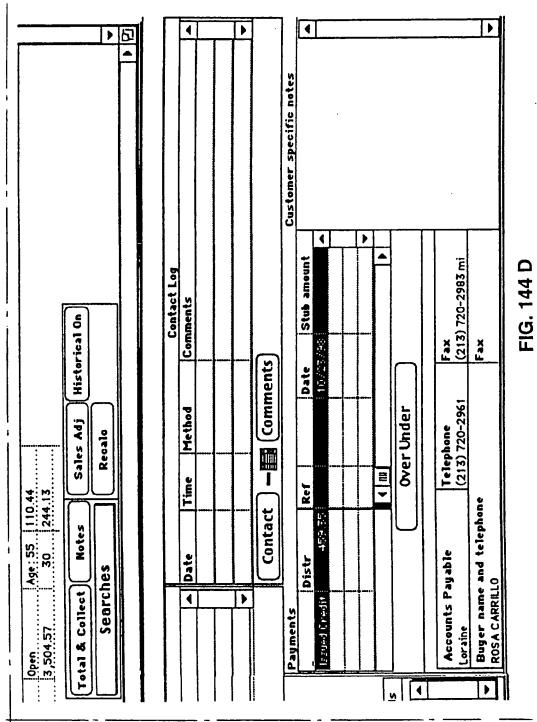


FIG. 145

FIG. 145 A FIG. 145 B FIG. 145 C FIG. 145 D	FIG. 145 A	FIG. 145 B	FIG. 145 C	FIG. 145 D
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MYS date	Mega PO	Cust Name/PO *-	-Term-BTO	Item Sold Description / Mfi
10/2/97	······	UNION BANK OF CALI	ORNIA	VECTRA VL5 DT 5/166 MMX 16M
M97-25641	NoP	6310009524	N10	HP PC'S
1/8/97	***************************************	ORACLE		TRNSCVR MICRO MOD 10B5
M97-24289	NoP	230419	N45	DIGI
00/00/00	***************************************			APEX 4.6GB PCI INT 5.25HH SCS
M96-21656	N₀P			PINNACLE MICRO
00/00/00	y			OMDR 4.6GB OPTL MED REWRITAE
M96-21656	NoP			PINNACLE
1/8/97	*************	Goldman, Sachs		PC-TRAC PS/2 TRACKBALL
M97-24287	NoP	S0108C820	N30	MICROSPEED INC.
00/00/00	*****			RECORDABLE BLANK CD 650MB 4
M96-22125	NoP			SONY CORPORATION OF AMERICA
1/8/97		PACIFIC BELL BAY U	TIV	LASERJET TONER 4 4M 4PLUS 4M
<u> 197-24288</u>	NoP	AJ0EN95	N10	HP PRINTERS
1/8/97		ORACLE		8-PORT 10BT ETH HUB
197-24289	NoP	230419	N45	DIGI
00/00/00				CDQ-74SZ RECORD ABLE 10-PK SIL
<u> 196-22758</u>	NoP			SONY MEDIA
00/00/00	*****			LS-120 DRIVE 3.5HH 120MB READ
196-22875	NoP			COMPAQ COMPUTER CORPORATIO
00/00/00	****************			LASERJET 5SI 5SIMX TONER CART
<u> 196-23636</u>	NoP			HP PRINTERS
00/00/00				DLT COMPACTAPE HIXT 30GB 7PH
<u> 196-23639</u>	NoP			ADIC
00/00/00				EZ135 135MB CARTRIDGE SNGL P
196-23704	NoP		!	SYQUEST

FIG. 145 A

tems Sold: 1	3136 01 1	JI				
	Sprice	₩eight/ETA	Scost	/ Pcost	Vendor	·/Con
2500 24XCD WFW W	*********************		1,229.0	0	Merisel	
i1				,227.00		6123
	D1000000100000000000000000000000000000	***************************************	44.28		Merisel	
i1	<del></del>			44.00		05517
MB 17MS W/SCSII			1,434.0	7	TECHDA	TA
			1	,370.00		8791
	**************		162.05		Merisel	****
2				138.00		
***************************************	************************		66.14		MicroD	***************************************
2				66.14		50-81
K 74 MINUTES		******	6.76			
20				5.85		
S YIELD-6800 PAG	*****************	***************************************	89.00		Merisel	
2				89.00		05517
***************************************	**************	***************************************	204.12	***************************************	Merisel	************
!1		<u> </u>		199.00		)5517 <u>2</u>
REEN COMPATIBLE	700 <b>00</b> 001 0010 0010 0010 00 0010 1 1 1 1 1	***************************************	59.36		TECHDA	TA
				59.50		55918
RITEABLE TO 1.44MB	*******************************					
				193.00		84003
<u> </u>	******************************	*****				
				157.00		
	***************************************	***************************************	295.54		TECHD A	TA
				295.CC		
RD DISK CART FOR	******************		19.00		TECHD A	

FIG. 145 B

Mfr / Vendor(PN	) Lprice/Lcost	Rebate
D4594B*ABA		Test
27809		
MIL4340M		Test
62704		
APEX4.6GBPCI		Test
630172		
OMDR 4.6 GB	***************************************	Test
79769		
PD-250	**************************************	Test
256226		<u> </u>
CDQ-74A		Test
314732		
92298 A 40901	•	Test
		<u>i</u>
MIL4710H 02223		Test
CDQ-74SZ		<u> </u>
803339	**************************************	Test
185061-001		Test
437119		145(
C3909A		Test
546065	***************************************	
39-1050-11		Test
048400		
\$107793/\$0135		Test
789369		**************************************

FIG. 145 C

400/6/

		E	E
Special	Pcomments		4
7 <b>40</b> 7 4 7 4 4 7 8 4 7 6 6 7 6 7 6 7 7 7 7 7 7 7 7 7 7 7 7	»CustRetType:Lost in tran	sit	E
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	ETA: AS SOON AS POSSIBLE		l
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		1111	†

FIG. 145 D

PCT/US98/27496

401/431-

FIG. 146

FIG. 146 A	FIG. 146 B	FIG. 146 C
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407/43,-

MWS date 1	1ega PO	Cust Name/PO *-	-Term-BTO	Item sold Description /
10/2/97	,	UNION BANK OF CALI		VECTRA VL5 DT 5/166 MMX
M97-25641	NoP	6310009524	N10	HP PC'S
1/8/97		ORACLE		TRNSCVR MICRO MOD 10B5
M97-24289	NoP	230419	N45	DIGI
00/00/00				APEX 4.6GB PCI INT 5.25HH
M96-21656	NoP			PINNACLE MICRO
00/00/00				OMDR 4.6GB OPTL MED REWE
M96-21656	NoP			PINNACLE
1/8/97		Goldman, Sachs		PC-TRAC PS/2 TRACKBALL
M97-24287	NoP	S0108C820	N30	MICROSPEED INC.
00/00/00				RECORD ABLE BLANK CD 650
M96-22125	NoP			SONY CORPORATION OF AME
1/8/97		PACIFIC BELL BAY L	INIT	LASERJET TONER 4 4M 4PLU
M97-24288	NoP	AJOEN95	N10	HP PRINTERS
1/8/97	•••	ORACLE		8-PORT 10BT ETH HUB
M97-24289	NoP	230419	N45	DIGI
00/00/00	·····	• • • • • • • • • • • • • • • • • • •		CDQ-74SZ RECORDABLE10-F
M96-22758	NoP			SONY MEDIA
00/00/00	······································	•	····	LS-120 DRIVE 3.5HH 120MB
M96-22875	NoP		<u> </u>	COMPAQ COMPUTER CORPOR
00/00/00			**************************************	LASERJET 5SI 5SIMX TONER
M96-23636	NoP			HP PRINTERS
00/00/00	******************			DLT COMPACTAPE IIIXT 300
M96-23639	NoP			ADIC
00/00/00	***************************************			EZ135 135MB CARTRIDGE S
M96-23704	NoP	i		SYQUEST

FIG. 146 A

403/431-

fr	Qty	Order/ETA	Epd ETA/Status	Epd Condition
6MB M2500 24)		<del></del>	6/17/98	****
	1		Back order	
		1/8/97		
	1			
CSI2 4.5MB 17M	s w/scs	1/21/97		
	1			
Γ ABLE	*******	2/3/97		
	2			
	***************************************	1/9/97		
	2			
3 4X 1PK 74 MIN	UTES	2/10/97		
	20			
4M PLUS YIELD	-6800 P	1/8/97	-	
	2			
•••••••••••••••••	***************************************	1/8/97		
	1	<u> </u>		
SILK SCREEN CO	MPATIBL	8/15/96		
	1			
EAD/WRITEABLE	TO 1.44	1/8/97		>+++1 M 40+7************************************
	1			
ARTRIDGE	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	1/21/97		***************************************
	1	<u> </u>		
7PK	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	10/8/96		
	1	<u> </u>	Open source comple	ete
L PK HARD DISK	,	1/21/97		
	10	<u> </u>		

FIG. 146 B

404/43,-

			************	
Mfr/Vendor PN	Yendor/Conf*	Ecomments	5	
D4594B*ABA	Merisel	<b>.</b>	y	
27809	6123589			
MIL4340M	Merisel			
62704	05517214			
APEX4.6GBPCI	TECHDATA			
630172	8791827			
OMDR 4.6 GB	Merisel			
79769	05582632	•		
PD-250	MicroD			
256226	50-81179	•		•
CDQ-74A	MicroD			
314732	**************************************	•		
92298A	Merisel			
40901	05517214	•	**************************************	
MIL4710H	Merisel			
02223	05517214	• • • • • • • • • • • • • • • • • • •	**************************************	
CDQ-74SZ	TECHDATA			
803339	5591827	•••••••••••••	**************************************	
185061-001	MicroD			
437119	8400326	•••••••••••••••••••••••••••••••••••••••		
C3909A	TECHDATA			
546065	5591827	• •••••••••••••••••••••••••••••••••••••		
39-1050-11	TECHDATA			
048400	7384066	***************************************		
\$107793/\$0135	TECHDATA			
789369	5591827		**************************************	

FIG. 146 C

405/43,-

FIG. 147

FIG. 147 A F	IG. 147 B	FIG. 147 C
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MYS date 1	1egs PO	Cust Name/PO	STASS-PTO
10/2/97	ieya i u	UNION BANK OF CA	
M97-25641	NoP	6310009524	N10
1/8/97	·	ORACLE	
M97-24289	NoP	230419	N45
00/00/00			
M96-21656	NoP	· • · · · · · · · · · · · · · · · · · ·	
00/00/00			
M96-21656	NoP	***************************************	
1/8/97		Goldman, Sachs	
M97-24287	N₀P	S0108C820	N30
00/00/00			
M96-22125	NoP		
1/8/97	•	PACIFIC BELL BAY	/ UNIT
M97-24288	NoP	AJOEN95	N10
1/8/97	. *************************************	ORACLE	
M97-24289	NoP	230419	N45
00/00/00	•••••	•	
M96-22758	N <sub>0</sub> P		
00/00/00	•	411110011111111111111111111111111111111	
M96-22875	N₀P		
00/00/00	·*·····	•••••••••••••	
M96-23636	NoP		
00/00/00	· ••••••••••••••••••••••••••••••••••••	• • • • • • • • • • • • • • • • • • • •	
M96-23639	NoP		
00/00/00	- y	•••••	***************************************
M96-23704	NoP		
1			

FIG. 147 A

	= Items Joid.	13130 0	f 131
Item sold Description /	MfrPS Num	Qty	Order/ET
VECTRA VL5 DT 5/166 MMX HP PC'S	16MB M2500 24XI	D WFW W	10/2/97
TRNSCVR MICRO MOD 1085 DIGI		<u> </u>	1/8/97
APEX 4.6GB PC1 INT 5.25HH PINNACLE MICRO	SCS12 4.5MB 17MS	W/SCSII	1/21/97
OMDR 4.6GB OPTL MED REWI	RITABLE	2	2/3/97
PC-TRAC PS/2 TRACKBALL MICROSPEED INC.		2	1/9/97
RECORD ABLE BLANK CD 6501 SONY CORPORATION OF AME	~ ··· • · · · · · · · · · · · · · · · ·	TES 20	2/10/ <del>9</del> 7
LASERJET TONER 4 4M 4PLU HP PRINTERS	IS 4M PLUS YIELD-	800 PAG	1/8/97
8-PORT 10BT ETH HUB			1/8/97
DIGI	<u> </u>	<u>''                                     </u>	·
DIGI CDQ-74SZ RECORDABLE10-P SONY MEDIA	K SILK SCREEN COM	<del></del>	8/15/96
CDQ-74SZ RECORD ABLE 1 O-P	READ/WRITEABLE	PATIBLE	
CDQ-74SZ RECORDABLE10-P SONY MEDIA LS-120 DRIVE 3.5HH 120MB	READ/WRITEABLE	IPATIBLE 1 1 TO 1.44M	
CDQ-74SZ RECORD ABLE 10-P SONY MEDIA LS-120 DRIVE 3.5HH 120MB COMPAQ COMPUTER CORPOR LASERJET 5SI 5SIMX TONER	READ/WRITEABLE	IPATIBLE 1 1 TO 1.44M	1/8/97

FIG. 147 B

Mfr/Vendor P	N Vendor/Conf	• Receive Condition / Roomments
D4594B*ABA	Merisel	
27809	6123589	
MIL4340M	Merisel	
62704	05517214	
APEX4.6GBPCI	TECHDATA	
630172	8791827	
OMDR 4.6 GB	Merisel	
79769	05582632	
PD-250	MicroD	
256226	50-81179	
CDQ-74A	MicroD	
314732		
92298A	Merisel	
40901	05517214	
MIL4710H	Merisel	
02223	05517214	
CDQ-74SZ	TECHDATA	
803339	5591827	
185061-001	MicroD	
437119	8400326	
C3909A	TECHDATA	
546065	5591827	
39-1050-11	TECHDATA	
048400	7384066	
S107793/SQ135	TECHDATA	
789369	5591827	

FIG. 147 C

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FIG. 148

FIG. 148 A
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MYS date	Mega PO	Cust Name/PO	sTerm-BT
10/2/97		UNION BANK OF CA	LIFORNIA
M97-25641	NoP	6310009524	N10
1/8/97		ORACLE	
M97-24289	NoP	230419	N45
00/00/00			
M96-21656	NoP		
00/00/00			
M96-21656	NoP		
1/8/97		Goldman, Sachs	
M97-24287	NoP	S0108C820	N30
00/00/00	***********************		
M96-22125	NoP		
1/8/97	····	PACIFIC BELL BAY	' UNIT
M97-24288	NoP	AJOEN95	N10
1/8/97		ORACLE	
M97-24289	NoP	230419	N45
00/00/00	**************		
M96-22758	NoP		
00/00/00	***************************************		***************************************
M96-22875	NoP		
00/00/00	****		
M96-23636	NoP		
00/00/00	**************		
M96-23639	NoP		
00 /00 /00			
00/00/00	*********		
M96-23704	NoP		

FiG. 148 A

P PC'S  RNSCVR MICRO MOD 10B5  IGI  PEX 4.6GB PCI INT 5.25HH SCSI2 4.5MB 17MS INNACLE MICRO  MDR 4.6GB OPTL MED REWRITABLE INNACLE  C-TRAC PS/2 TRACKBALL IICROSPEED INC.  ECORD ABLE BLANK CD 650MB 4X 1PK 74 MINL ONY CORPORATION OF AMERICA  ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- P PRINTERS  -PORT 10BT ETH HUB IGI  DQ-74SZ RECORD ABLE 10-PK SILK SCREEN CON	1	27809  MIL4340M 62704  APEX4.6GBPCI 630172  OMDR 4.6 GB 79769  PD-250 256226  CDQ-74A 314732	Wendor/Con Merisel 6123589 Merisel 05517214 TECHDATA 8791827 Merisel 05582632 MicroD 50-81179 MicroD MicroD
RNSCVR MICRO MOD 10B5 DIGI  APEX 4.6GB PCI INT 5.25HH SCSI2 4.5MB 17MS PINNACLE MICRO DMDR 4.6GB OPTL MED REWRITABLE PINNACLE PIC-TRAC PS/2 TRACKBALL MICROSPEED INC. RECORDABLE BLANK CD 650MB 4X 1PK 74 MINL SONY CORPORATION OF AMERICA ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS B-PORT 10BT ETH HUB DIGI CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	1	27809  MIL4340M 62704  APEX4.6GBPCI 630172  OMDR 4.6 GB 79769  PD-250 256226  CDQ-74A 314732  92298A 40901	6123589  Merisel 05517214  TECHDATA 8791827  Merisel 05582632  MicroD 50-81179  MicroD MicroD  Merisel 05517214
PINNACLE MICRO  DMDR 4.6GB OPTL MED REWRITABLE PINNACLE  PC-TRAC PS/2 TRACKBALL MICROSPEED INC.  RECORDABLE BLANK CD 650MB 4X 1PK 74 MINU SONY CORPORATION OF AMERICA  ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  B-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	2 2 2 2 20 6800 PAG	MIL4340M 62704 APEX4.6GBPCI 630172 OMDR 4.6 GB 79769 PD-250 256226 CDQ-74A 314732 92298A 40901	Merisel 05517214 TECHDATA 8791827 Merisel 05582632 MicroD 50-81179 MicroD Merisel 05517214
APEX 4.6GB PCI INT 5.25HH SCSI2 4.5MB 17MS PINNACLE MICRO  DMDR 4.6GB OPTL MED REWRITABLE PINNACLE PIC-TRAC PS/2 TRACKBALL MICROSPEED INC. RECORDABLE BLANK CD 650MB 4X 1PK 74 MINL SONY CORPORATION OF AMERICA  ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD-HP PRINTERS  B-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	2 2 2 2 20 6800 PAG	62704  APEX4.6GBPCI 630172  OMDR 4.6 GB 79769  PD-250 256226  CDQ-74A 314732  92298A 40901	05517214 TECHDATA 8791827 Merisel 05582632 MicroD 50-81179 MicroD Merisel 05517214
APEX 4.6GB PCI INT 5.25HH SCSI2 4.5MB 17MS PINNACLE MICRO  DMDR 4.6GB OPTL MED REWRITABLE PINNACLE  PIC-TRAC PS/2 TRACKBALL MICROSPEED INC.  RECORDABLE BLANK CD 650MB 4X 1PK 74 MINU SONY CORPORATION OF AMERICA  ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD-HP PRINTERS  B-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	2 2 2 2 20 6800 PAG	APEX4.6GBPC1 630172 0MDR 4.6 GB 79769 PD-250 256226 CDQ-74A 314732 92298A 40901	TECHDATA 8791827 Merisel 05582632 MicroD 50-81179 MicroD Merisel 05517214
OMDR 4.6GB OPTL MED REWRITABLE PINNACLE  PC-TRAC PS/2 TRACKBALL MICROSPEED INC.  RECORDABLE BLANK CD 650MB 4X 1PK 74 MINL SONY CORPORATION OF AMERICA  ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  B-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	2 2 7TES 20 6800 PAG	630172 OMDR 4.6 GB 79769 PD-250 256226 CDQ-74A 314732 92298A 40901	8791827 Merisel 05582632 MicroD 50-81179 MicroD Merisel 05517214
PINNACLE MICRO  OMDR 4.6GB OPTL MED REWRITABLE PINNACLE  PC-TRAC PS/2 TRACKBALL MICROSPEED INC.  RECORDABLE BLANK CD 650MB 4X 1PK 74 MINL SONY CORPORATION OF AMERICA  LASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  B-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	2 2 7TES 20 6800 PAG	630172 OMDR 4.6 GB 79769 PD-250 256226 CDQ-74A 314732 92298A 40901	Merise1 05582632 MicroD 50-81179 MicroD Merise1 05517214
PINNACLE  PC-TRAC PS/2 TRACKBALL  MICROSPEED INC.  RECORDABLE BLANK CD 650MB 4X 1PK 74 MINL  SONY CORPORATION OF AMERICA  LASERJET TONER 4 4M 4PLUS 4M PLUS YIELD-  HP PRINTERS  B-PORT 10BT ETH HUB  DIGI  CDQ-74SZ RECORDABLE10-PK SILK SCREEN CON	TES 20 6800 PAG	79769 PD-250 256226 CDQ-74A 314732 92298A 40901	05582632  MicroD  50-81179  MicroD  Merisel  05517214
PINNACLE  PC-TRAC PS/2 TRACKBALL  MICROSPEED INC.  RECORDABLE BLANK CD 650MB 4X 1PK 74 MINL  SONY CORPORATION OF AMERICA  ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD-  HP PRINTERS  B-PORT 10BT ETH HUB  DIGI  CDQ-74SZ RECORDABLE 10-PK SILK SCREEN CON	TES 20 6800 PAG	79769 PD-250 256226 CDQ-74A 314732 92298A 40901	05582632  MicroD  50-81179  MicroD  Merisel  05517214
SONY CORPORATION OF AMERICA  LASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  B-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE10-PK SILK SCREEN CON	TES 20 6800 PAG	PD-250 256226 CDQ-74A 314732 92298A 40901	50-81179 MicroD Merisel 05517214
MICROSPEED INC.  RECORD ABLE BLANK CD 650MB 4X 1PK 74 MINL SONY CORPORATION OF AMERICA  LASERJET TONER 4 4M 4PLUS 4M PLUS YIELD-HP PRINTERS  B-PORT 10BT ETH HUB  DIGI  CDQ-74SZ RECORD ABLE 10-PK SILK SCREEN CON	TES 20 6800 PAG	256226 CDQ-74A 314732 92298A 40901	50-81179 MicroD Merisel 05517214
RECORD ABLE BLANK CD 650MB 4X 1PK 74 MINUSONY CORPORATION OF AMERICA  LASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  8-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORD ABLE 10-PK SILK SCREEN CONSONY MEDIA	TES 20 6800 PAG	CDQ-74A 314732 92298A 40901	MicroD Merisel 05517214
SONY CORPORATION OF AMERICA  LASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  8-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORDABLE10-PK SILK SCREEN CON	20 6800 PAG	314732 92298A 40901	Merisel 05517214
L ASERJET TONER 4 4M 4PLUS 4M PLUS YIELD- HP PRINTERS  8-PORT 10BT ETH HUB DIGI  CDQ-74SZ RECORD ABLE 10-PK SILK, SCREEN CON	6800 PAG	92298A 40901	05517214
HP PRINTERS  8-PORT 10BT ETH HUB  DIGI  CDQ-74SZ RECORDABLE10-PK SILK SCREEN CON	·	40901	05517214
8-PORT 10BT ETH HUB DIGI CDQ-74SZ RECORDABLE10-PK SILK SCREEN COM	1	<del>(</del>	<del>`                                    </del>
DIGI CDQ-74SZ RECORDABLE10-PK SILK SCREEN COM	<u> </u>	MIL4710H	Marical
CDQ-74SZ RECORD ABLE 10-PK SILK SCREEN CON	1		11 161 1361
***************************************	<del></del>	02223	05517214
SONY MEDIA	1PATIBLE	CDQ-74SZ	TECHDATA
	1	803339	5591827
LS-120 DRIVE 3.5HH 120MB READ/WRITEABLE	TO 1.44M	185061-001	MicroD
COMP AQ COMPUTER CORPORATION	1	437119	8400326
LASERJET 5SI 5SIMX TONER CARTRIDGE		C3909A	TECHDATA
HP PRINTERS	1	546065	5591827
DIT COMPACTARE HINT 7000 700		:	<del>:</del>
DLT COMPACTAPE IIIXT 30GB 7PK ADIC		39-1050-11 048400	7384066
	;1	<del></del>	
EZ135 135MB CARTRIDGE SNGL PK HARD DISK ( SYQUEST	CART FOR	S107793/S0135 789369	TECHDATA 5591827

FIG. 148 B

Install/D	ate Install G	iroup leem	nents / ETA	
Test		л одр.соли	ilents / ETA	
Test				
Test				
				<b>==</b>
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Test		<del></del>		=
1627				
Test			· · · · · · · · · · · · · · · · · · ·	<b></b>
***************************************				
Test				
				] [

FIG. 148 C

FIG. 149

FIG. 149 A	FIG. 149 B	FIG. 149 C
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494/43,

				14.
MYS date	Mega PO	Cust Name/PO *	-Term-RYO	Item sold Description / Mfr
10/2/97	,	UNION BANK OF CALIF		VECTRA VLS DT 5/166 MMX 16MI
M97-25641	NoP	6310009524	N10	HP PC'S
1/8/97	····	ORACLE		TRNSCVR MICRO MOD 10B5
M97-24289	NoP	230419	N45	DIGI
00/00/00	**************************			APEX 4.6GB PCI INT 5.25HH SCS12
M96-21656	NoP			PINNACLE MICRO
00/00/00			· ·····	OMDR 4.6GB OPTL MED REWRITAB
M96-21656	NoP	<u> </u>		PINNACLE
1/8/97		Goldman, Sachs	V	PC-TRAC PS/2 TRACKBALL
M97-24287	NoP	S0108C820	N30	MICROSPEED INC.
00/00/00	·····			RECORD ABLE BLANK CD 650MB 4X
M96-22125	NoP			SONY CORPORATION OF AMERICA
1/8/97	···· y 1 ···· · · · · · · · · · · · · ·	PACIFIC BELL BAY UN	IIT	LASERJET TONER 4 4M 4PLUS 4M
M97-24288	NoP	AJ0EN95	N10	HP PRINTERS
1/8/97		ORACLE		8-PORT 10BT ETH HUB
M97-24289	NoP	230419	N45	DIGI
00/00/00				CDQ-74SZ RECORDABLE10-PK SIL
M96-22758	NoP			SONY MEDIA
00/00/00	····•			LS-120 DRIVE 3.5HH 120MB READ
<u> 196-22875</u>	N₀P			COMPAQ COMPUTER CORPORATION
00/00/00	···•		<b></b>	LASERJET 5SI 5SIMX TONER CART
M96-23636	NoP			HP PRINTERS
00/00/00				DLT COMPACTAPE HIXT 30GB 7PK
M96-23639	NoP			ADIC
00/00/00			<b>4</b>	EZ135 135MB CARTRIDGE SNGL PK
4 IIII	.NoP			SYNUEST

FIG. 149 A

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Sold: 1	3138	of 131		
Q	ty	Mfr/Vendor PN	Vendor/Conf	Order/R
00 24XCD	WFW W	D4594B*ABA	Merisel	10/2/97
1		27809	6123589	
		MIL4340M	Merisel	1/8/97
1		62704	05517214	
B 17MS W	/SCSII	APEX4.6GBPCI	TECHDATA	1/21/97
1		630172	8791827	
		OMDR 4.6 GB	Merisel	2/3/97
2		79769	05582632	
		PD-250	MicroD	1/9/97
2		256226	50-81179	
4 MINUTE	S	CDQ-74A	MicroD	2/10/97
20	0	314732		
YIELD-68	00 PAG	92298A	Merisel	1/8/97
2		40901	05517214	
		MIL4710H	Merisel	1/8/97
1		02223	05517214	
EN COMP	ATIBLE	CDQ-74SZ	TECHDATA	8/15/96
1		803339	5591827	
EABLE TO	1.44M	185061-001	MicroD	1/8/97
1	************	437119	8400326	
		C3909A	TECHD AT A	1/21/97
Ĭ1		546065	5591827	
		39-1050-11	TECHD AT A	10/8/96
1	***************************************	048400	7384066	
DISK CA	RT FOR	\$107793/\$0135	TECHDATA	1/21/97
1		789369	5591827	

FIG. 149 B

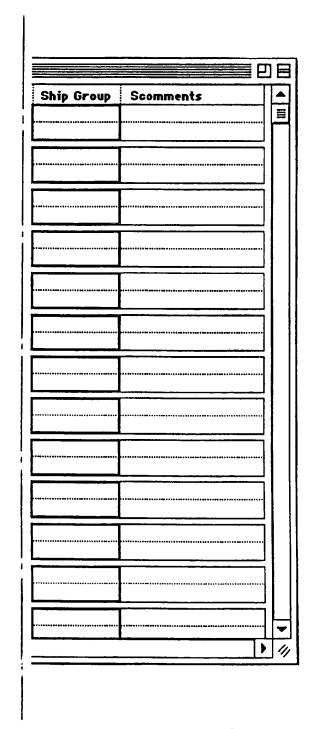
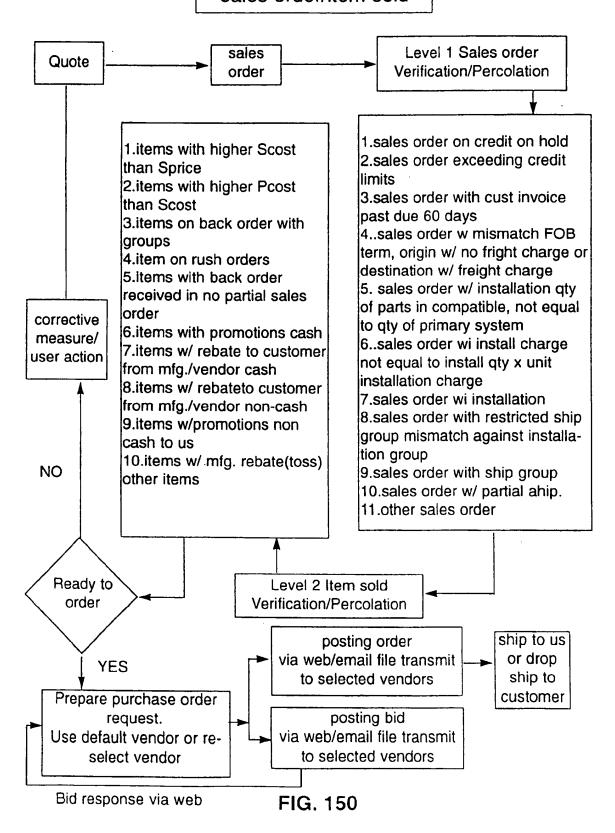


FIG. 149 C

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## Percolation/Verification sales order/item sold



## Percolation/Verification Receiving

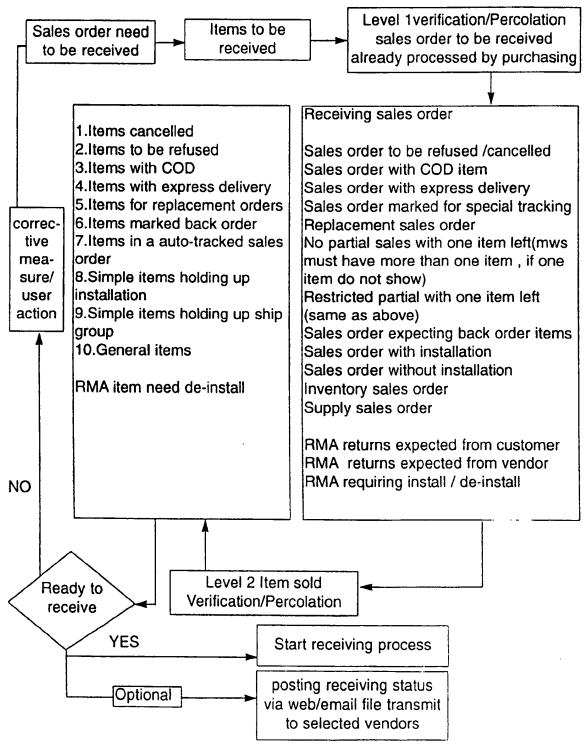
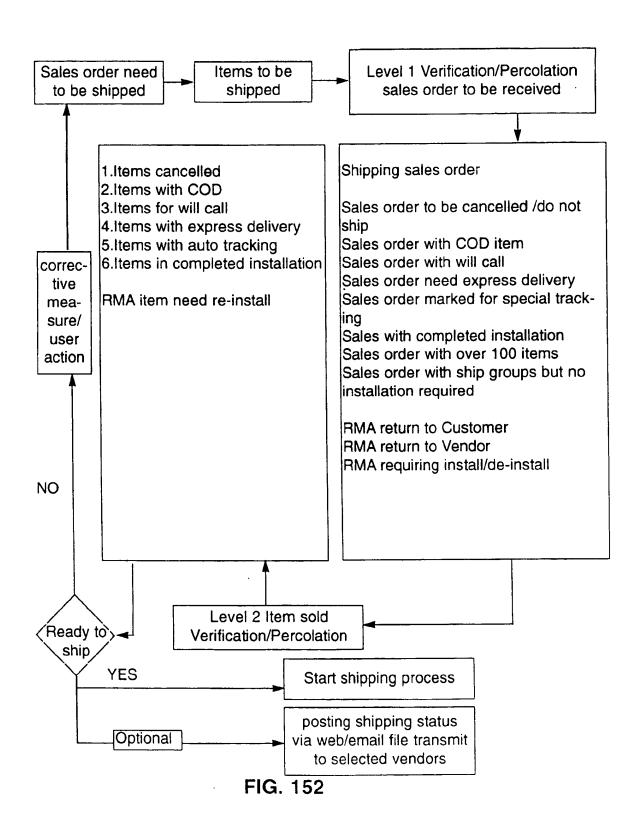


FIG. 151

## Percolation/Verification Shipping



## Percolation/Verification Installation/Assemble

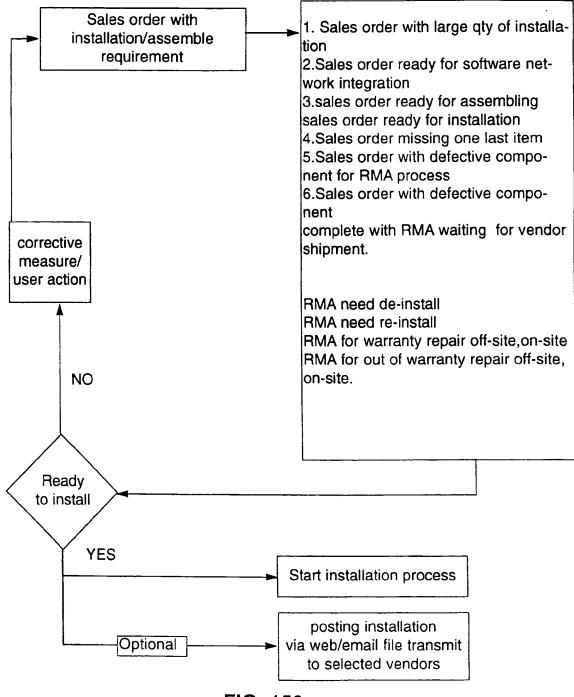


FIG. 153

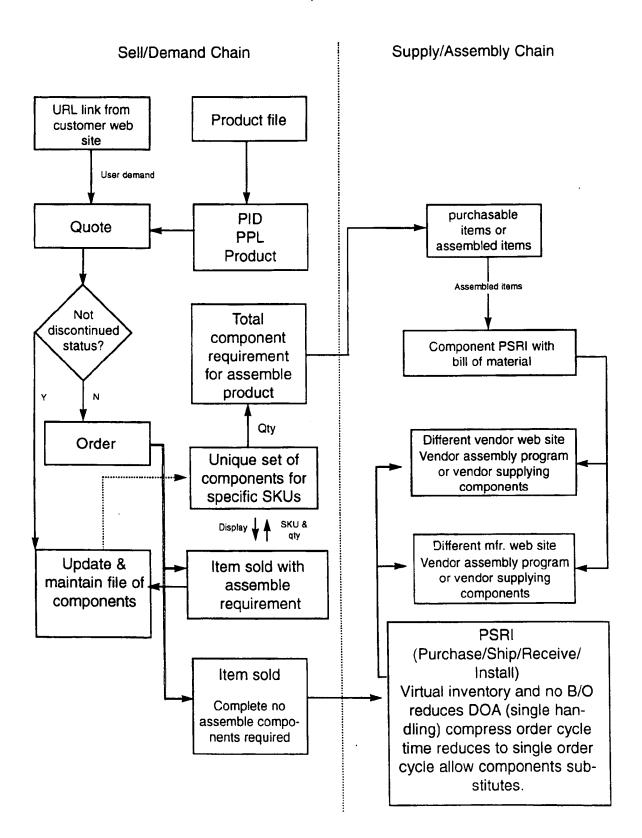


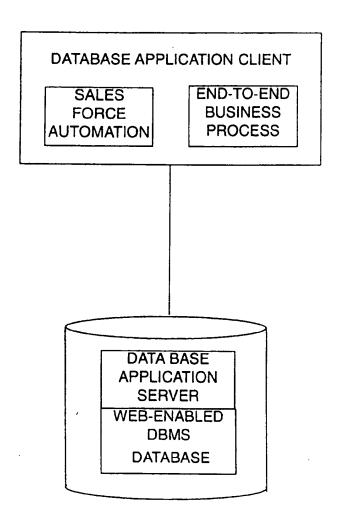
FIG. 154

Cust. Business Activities	Busiast Period	Week Month	Slowest	Week Month									Digital file	Activate
Cust. Access group	Supervisor Access List name	1. 2.	Universal Access	Individual									Digital file	Activate
Cust. Security	Self	Vendor	Encryption	SET	Security Certificate	VPN	Inside Firewall						Digital file	Activate
Cust. Payment	Retrieve	Credit	Cr. card frequency limit	Cr. card \$ limit	Check	EFF S limit	Weekly	Daily	Monthly				Digital file	Activate
Cust. Cr. memo	Issued Internal External												Digital file	Activate
Cust. Invoice	Retrieve	Fax	Mail	Oty limit Web Per tracking download	Cr. apply to inv.	Replace invoice	Frequency Weekly Daily						Digital file	Activate
Cust. Tracking	Serial #	\$ limit Per tracking	Duration	Oty limit Per tracking	_	_							Digital file	Activate
Cust. Shipping	Method UPS	AirBorne Truck	Pick up	Hand Carry	Deliver with- in building	Drop Ship	Destina- tion	Origin	Lòading Dock	Packing slip	Partial	Label Detail general	Digital file	Activate
Cust. Service & Repair	On-site	Off-site	Labor \$	Labor \$ off site	Part stock	Part charge	Duration 2, 4, 8, 24, 48, 72 hrs	Service contract	1, 2, 3 yr				Digital file	Activate
Cust. RMA	Create	Save/ retrieve	Modify	Submit	\$ limit Per RMA	Oty limit Per day	Frequency limit RMA/day	Standard guide	Auto approved	Packing slip			Digital file	Activate
Cust. Report	RMA customer not shipped	RMA cust.not received	RMA summary	PO summary	B/O summary	Tracking report	Period limit	Oty report	Ship report	Rec'd report	Acct. invoice	Payment	Digital file	Activate
Cust. Order	Place	3.2.	Adden- dum	3.2.	Retrieve	3.2.	Cancel	\$ limit Per order	Oty limit Per day	Frequency limit Order/day	Tracking order Per month	Eval	Digital file	Activate
Cust. Quote	Create	3.2.	Save/ retrieve	3.	Modify	3.2.	Submit	\$ limit	Oty limit Per day	Frequency limit Quote/day	Archive limit Per month	Eval	Digital file	Activate
Cust. Price update	Frequency Daily	Weekly	Monthly	Minimum \$ update	Show new product	Show discount product	Pricing update	Cost plus Fixed price	mfr. specific	Show all product	PPL	Old	Digital file	Activate
Task		Corporate YM selection												

FIG. 155

ဟတ			·			<u> </u>			· · · · · · · · · · · · · · · · · · ·					
Vendor Business Activities	Busiest Period	Week Month	Slowest Period	Week Month		٠							Digital file	Activate
Vendor Access group	Supervisor Access List name	1.	Universal Access	Individual Access									Digital file	Activate
Vendor Security	Self	Vendor	Encryption	SET	Security Certificate	VPN	Inside Firewall						Digital file	Activate
Vendor Payment	Retrieve	Credit	Cr. card frequency limit	Cr. card \$ limit	Check	EFT \$ limit	Weekly	Daily	Monthly				Digital file	Activate
Vendor Cr. memo	Issued Internal External												Digital file	Activate
Vendor Invoice	Retrieve	Fax	Mail	Web download	Cr. apply to inv.	Replace invoice	Frequency Weekly Daily						Digital file	Activate
Vendor Tracking	Serial #	\$ limit Per tracking	Duration	Oty limit Per tracking									Digital file	Activate
Vendor Shipping	Method UPS FedEx	AirBorne Truck	Pick up	Hand Carry	Deliver with- in building	Drop Ship	Destina- tion	Origin	Loading Dock	Packing slip	Partial	Label Detail general	Digital file	Activate
Vendor Service & Repair	On-site	Off-site	Labor \$ on site	Labor \$ off site	Part stock	Part charge	Duration 2, 4, 8, 24, 48, 72 hrs	Service contract	1, 2, 3 yr				Digital file	Activate
Vendor	Create	Save/ retrieve	Modify	Submit	\$ limit Per RMA	Qty limit Per day	Froquency limit RMA/day	Standard guide	Auto approved	Packing slip			Digitaf file	Activate
Vendor Report	RMA customer not shipped	RMA cust.not	RMA summary	PO summary	B/O summary	Tracking report	Period Iimit	Oty report	Ship report	Rec'd report	Acct. invoice	Payment	Digital file	Activate
Vendor Order	Place	3.6	Adden- dum	3 2 -	Retrieve	3.	Cancel	\$ limit Per order	Oty limit Per day	Frequency limit Order/day	Tracking order Per month	Eval	Digital file	Activate
Vednor Quote	Create	3.8	Save/ retrieve	3.	Modify	3.	Submit	\$ limit per quote	Oty limit Per day	Frequency limit Quote/day	Archive limit Per month	Eval	Digital file	Activate
Vendor Price update	Frequency Daily	Weekly	Monthly	Minimum \$ update \$	Show new product	Show discount product	Pricing update	Cost plus Fixed price	mfr. specific	Show all product	PPL	PID	Digital file	Activate
Task	Corporate Y/N selection													

FIG. 156



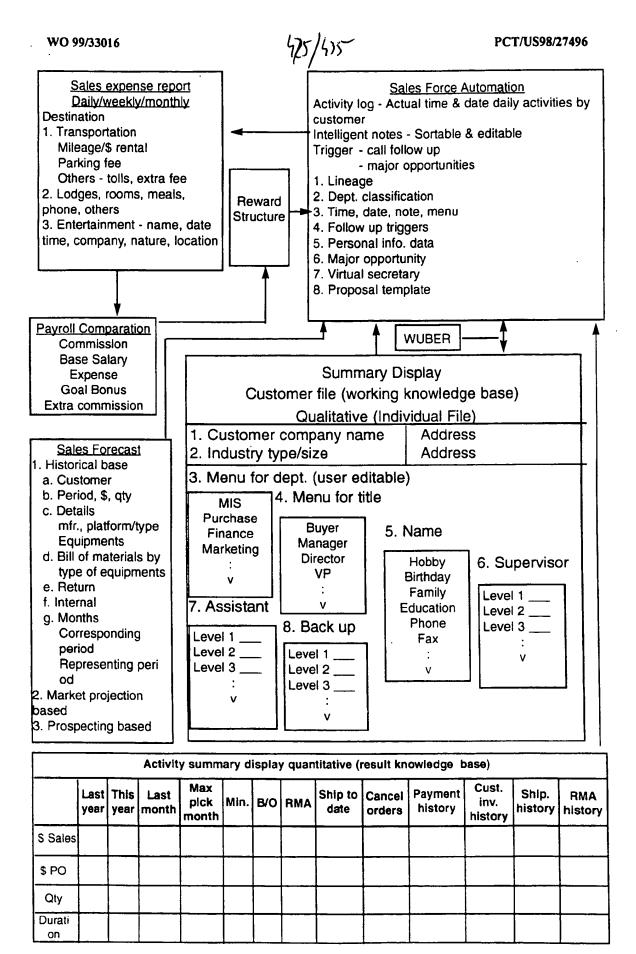


FIG. 159

FIG. 159	A
FIG. 159	В
FIG. 159	C

Type_	SubType	Condition
Exchange	Exchange different product	Original Product Not Opened
Exchange	Exchange different product	Original Product Opened No Box Left
Exchange	Exchange different product	Original Product Opened Not Used
Exchange	Exchange different product	Original Product Opened Used
Exchange	Exchange same product	Not Opened
Exchange	Exchange same product	Opened No Box Left
Exchange	Exchange same product	Opened Not Used
Exchange	Exchange same product	Opened Used
Never been shipped	Inventory	Transfer to other orders
Never been shipped	Wrong product received	Keep in inventory
Never been shipped	Wrong product received	Ship back to vendor
Other	Other	Other
Repair/replace	Out of Warranty	Depot parts required
Repair/replace	Out of Warranty	Depot service only

FIG. 159 A

Repair/replace	Out of Warranty	On site parts required
Repair/replace	Out of Warrenty	On site service only
Repair/replace	Under Warranty	Depot parts required
Repair/replace	Under Warranty	Depot service only
Repair/replace	Under Warranty	On site parts required
Repair/replace	Under Warranty	On site service only
Return for credit	Credit card	Not Opened
Return for credit	Credit card	Opened No Box Left
Return for credit	Credit card	Opened Not Used
Return for credit	Credit card	Opened Used
Return for credit	Credit memo	Not Opened
Return for credit	Credit memo	Opened No Box Left
Return for credit	Credit memo	Opened Not Used
Return for credit	Credit memo	Opened Used

FIG. 159 B

	חבימווו ולאכ ומסוכ אמלג ביל ב	
Shipping related:	Damaged	Coming back to us
Shipping related	Demeged	Directly back to vendor
Shipping related	Demaged	Need repair
Shipping related	Damaged	Will hold until replacement
Shipping related	Duplicate shipment	Coming back to us.
Shipping related	Duplicate shipment	Directly back to vendor
Shipping related	Duplicate shipment	Will issue new PO
Shipping related	Löst	File claim by customer
Shipping related	Lost	File claim by Mega Network
Shipping related	Lost	File claim by vendor
Shipping related	Refused	Coming back to us
Shipping related	Refused	Directly back to vendor
Shipping related	wrong Address	Coming back to us
Shipping related	Wrong Address	Directly back to vendor

FIG. 159 C

<b>3</b> 0	Company Price List					
	4			Company Code:	8	eq#: Sales Re
Defaults No Mfg URLS	URLS X Yeb User	User	1 1	Authorized Personnel		
Price Base MarkUP				10		MNp1277
AvgCost .0%	Z Z	Update Prices	Edit Empl	JAMES YI		MNp1275
LES Disalau List	Search	Clean Up	Print Emol	DI LINDA CHEUNG		MNp1090
				CHARLES WONG		11111
Sort List	Apply	Export/Print	Ship To Addr	ddr Robert Walters		MNp1271
Part Number M	Manufacturer	Price Basi	Price Basis Mark-up	Avail Spec Yeb URI	URL	
H0004						
36.00 HF	36.00 HPS SIMULA	AvgCo	AvgCost 2.58	2Days		
BE100/10						
	95.00 BOCA RESEARCH	AvgCo	AvgCost 4.58	2Days		
PC-PA2411U	WIVERSAL AC AD	UNIVERSAL AC AD APTER T1850C T4500 AND T4600	\$500 AND 740			
90.08	80 00 TOSHIBA AMERICA INF		AvgCost 4.5%	2Days		
H0003			**************************************	9		
36.00 H	36.00 HPS SIMULA	AvgCo	AvgCost 2.58	2Days		
SYGP64						
130.00 BC	30.00 BOCA RESEARCH	AvgCo	AvgCost 4.5%	2Days		
P A2413URA B.	ATTERY PACK NI	BATTERY PACK NICKEL HYDRIDE FOR T4500,T4600	2 74500,746			
195.00 TC	195.00 TOSHIBA AMERICA INF		AvgCost 4.5%	2Days		
H5490A						
	521.00 HEWLETT P3	AvgCo	AvgCost 2.5%	2Days		
BMCP01						
/9SS4	4556				•	

Fig 160 a

11

120 same as Vendor 1000 On Site Fee  0	Exch ange different Product	Exchange same Product	ō P		•	
, , , , , , , , , , , , , , , , , , ,	15	5	Cancelled order/shipment	Inventory	Wrong product received	Other
G × × × ×	Ě	•	•	•	•	Ť
	ap de	Exchange	Never been shipped	Never been shipped	Never been shipped	
Type	Exchange	Excha	Never	Never	Never	Other
Custar Cu	ပ	U	ပ	ပ	ပ	ပ

	1998	Yed	2	6	16	23	30						
	Go Te Today	Tue	-	8	15	22	29	12/21/98					
	Go Te	Σ	ā	7	*	21	28	to make 1		***************************************			
Finance		Sun	₹	9	13	20	72	Calls to					
	November 1998	Sat	7	14	21	28	17		1				<b> </b>
(Task)	Novemb	Fri	9	13	20	27							
mation		T.	5	12	19	26	<b>.</b>						
e Autoi		Xed	4	11	18	25	*	86					
Sales Force Automation (Task)		Tue	3	10	17	24		do 12/21/98					
Sales Force Automation (Task) Finance		Ωon	2	6	16	23	30				•		
		Sun	_	8	15	22	29	Schedule/To					

1000

433/43>

•	December	e .	<b></b> _		Blue: You Red: You	Blue: You finished. Red: You didn't finish.	ā. īnish.	Jan	Januaru 1999
The	Fri	Sat	Sun	Mon	Tue	Med	The state of the s	Fri	Sat
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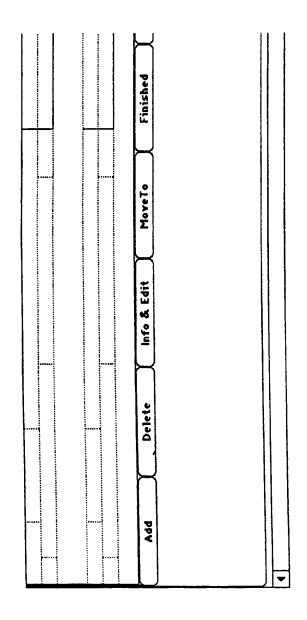


Fig 1610

C

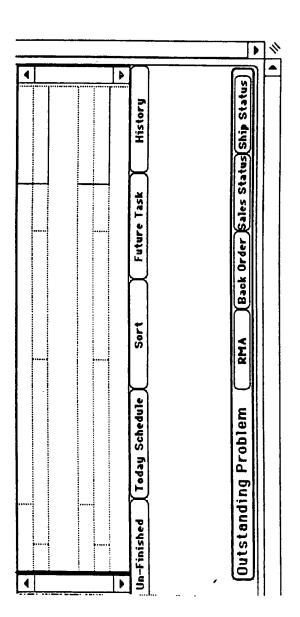


Fig 161d

## INTERNATIONAL SEARCH REPORT

Cam DOTIES A (210 Januard chart)/Tulu 1002) -

International application No. PCT/US98/27496

A. CL.	ASSIFICATION OF SUBJECT MATTER :G06F 17/60, 15/46; G06K 5/00		
US CL	:705/34; 235/380; 364/468.02		
According	to International Patent Classification (IPC) or to both	national classification and IPC	
	LDS SEARCHED		
Minimum	documentation searched (classification system followe	d by classification symbols)	
U.S. :	705/34; 235/380; 364/468.02		
Documenta	ation searched other than minimum documentation to the	extent that such documents are included in	the fields searched
	data base consulted during the international search (na	me of data base and, where practicable,	search terms used)
APS integration	on, merging, single, singular, unbroken, undivided, databa	se, web, internet, electronic, commerce, bus	iness,trade,industry
C. DO	CUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where ap	propriate, of the relevant passages	Relevant to claim No.
Y	US 5,621,201 A (LANGHANS et al.) 14-23	15 April 1997, col. 16, lines	1-79
Y	US 5,311,438 A (SELLERS et al.) 10 37, 48-52; co l. 71, lines 1-7.	May 1994, col. 70, lines 30-	1-79
Furt	ner documents are listed in the continuation of Box C	. See patent family annex.	,
	pecial categories of cited documents:	"T" later document published after the inte date and not in conflict with the appli	
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